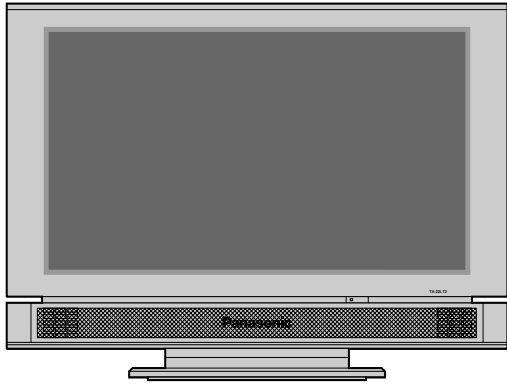
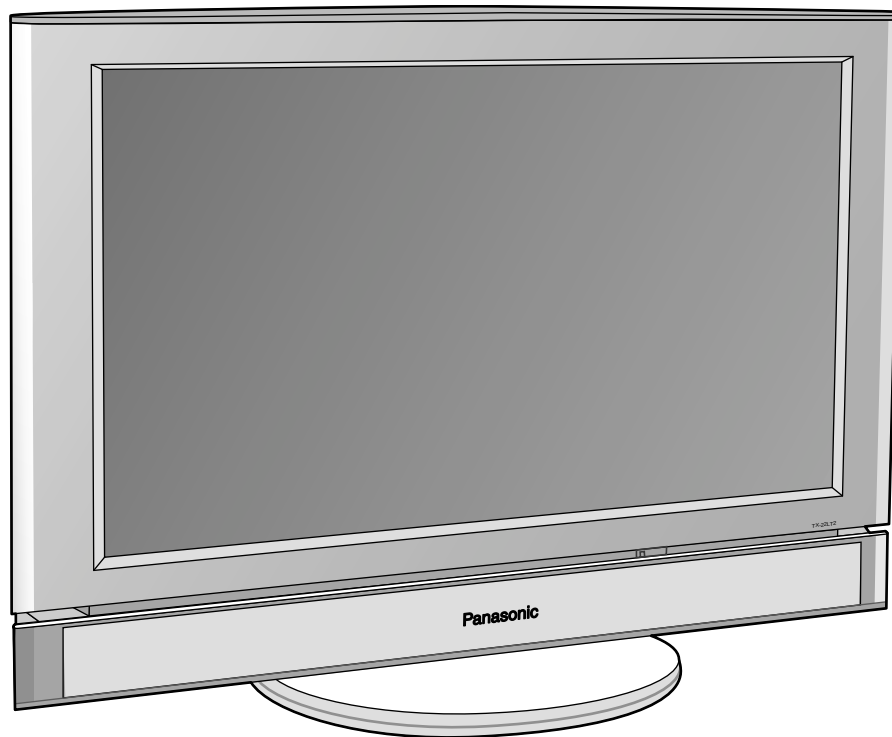


Panasonic®



22" Diagonal LCD TV Operating Instructions

Model No. **TX-22LT2**



Please read these instruction before operating your set and retain them for future reference.

Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new 22" Diagonal LCD TV.

To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference.

Retain your purchase receipt also, and note down the model number and serial number of your set in the space provided on the rear cover of these instructions.

Table of Contents

Warnings and Precautions	3	Setup menu	20
Before Operating This Set	4	Tuning menu-overview	21
Supplied Accessories	4	Programme edit	22
Fitting remote control batteries	4	Auto setup	24
Receiver Location	5	Manual tuning	25
Optional External Equipment	5	Shipping condition	26
For optimum quality picture	5	Owner ID	27
How to use the LCD stand	5	Aspect Controls	28
Quick start Guide	6	Q-Link	30
1. Choose Your Connection Type	6	Tuning your VCR and satellite reciver	31
2. Connecting the AC Adaptor	9	Advanced Remote Control Operation	32
3. Switch TV ON	9	VCR / DVD Operation	32
4. Auto set up	9	TELE TEXT	33
5. TV to VCR download	10	Connections	36
6. Owner ID	11	How to connect the input terminals	36
7. The two basic functions	11	How to connect the AUDIO OUT terminals	37
Basic controls	12	Connecting Headphones / Earphones	37
Side panel controls and Remote control	12	Troubleshooting	38
Using the On Screen Displays	15	Maintenance	38
Picture menu	16	Specifications	39
Sound menu	18		

Warnings and Precautions

- This TV set is designed to operate on DC 15V.
- To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.
- **WARNING : HIGH VOLTAGE!!!**
Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside.
- **TV Games / Home Computers**
Extended use of TV games or home computers with any television set can cause a permanent 'shadow' on the screen. This type of irreversible LCD panel damage, can be limited by observing the following points:
 - Reduce the brightness and contrast levels to a minimum viewing level.
 - Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the LCD TV screen.
 - Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.
 - This type of LCD panel damage, is not an operating defect, and as such is not covered by the Panasonic warranty.
- The On/Off switch on this model does not fully disconnect the TV from the mains supply. Remove the mains plug from the wall socket when the TV set is not used for a prolonged period of time.
Note:
 - If the set is not switched off when the TV station stops transmitting, it will automatically go to stand-by mode after 30 minutes. This function will not operate when the TV is in AV mode.
- **Cabinet and LCD panel care**
Remove the mains plug from the wall socket. The cabinet and LCD panel can be cleaned with a soft cloth moistened with mild detergent and water. Do not use solutions containing benzol or petroleum.
- When ambient temperature is cool, the picture may take a short time to reach normal brightness, but this is not a malfunction. (After brief moment, the picture will have normal brightness.)
- Adequate ventilation is essential to prevent failure of electrical components, we recommend that a gap of at least 10cm is left all around this television receiver even when it is placed inside a cabinet or between shelves.
- Avoid exposing the TV set to direct sunlight and other sources of heat.

FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY

This appliance is supplied with a fitted three pin mains plug for your safety and convenience. A 5 amp fuse is fitted in this plug. If the fuse is replaced then the replacement fuse must be 5 amp rated and should be approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the fitted plug has a removable fuse cover you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained. Replacement fuse covers can be purchased through your local Panasonic dealer.

If the fitted moulded plug is replaced, the fuse should be taken out and the cut-off plug disposed of safely. There is danger of severe electrical shock if the cut off plug is inserted into any 13 amp socket.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

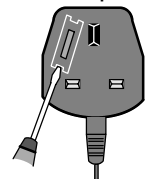
How to replace the fuse (for plug type shown in example 1):

Lift out the removable fuse compartment with a screwdriver and replace the fuse, then refit securely into the mains plug (see example 1).

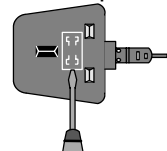
How to replace the fuse (for plug type shown in example 2):

Lift open the fuse compartment, in the mains plug, with a screwdriver, and replace the fuse, then press the fuse cover down securely (see example 2).

Example 1



Example 2



IMPORTANT: -The wires in the mains lead of this appliance are coloured in accordance with the following code :-
BLUE : NEUTRAL BROWN : LIVE

As the colours of the wires in the mains lead of this appliance may not correspond to the markings identifying the terminals in your plug, proceed as follows :-

1. The BLUE wire must be connected to the terminal marked 'N' or coloured black.
2. The BROWN wire must be connected to the terminal marked 'L' or coloured red.

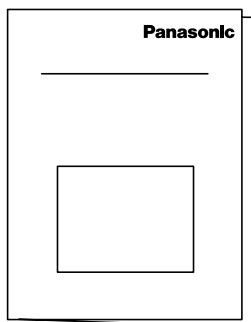
IMPORTANT NOTE: Under no circumstances should either of these wires be connected to the Earth terminal of the three pin plug, marked with the letter 'E' or the earth symbol. 

Before Operating This Set

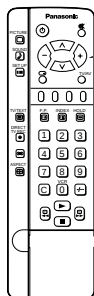
Supplied Accessories

Check the accessories before installations.

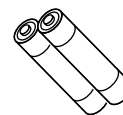
- Operating Instruction book (TQBC0356)



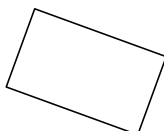
- Remote Control Transmitter (EUR511252)



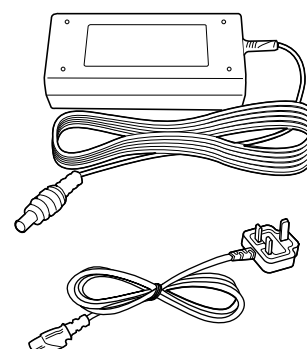
- Batteries for the Remote Control Transmitter (2 × R6 (UM3) size)



- Warranty Card

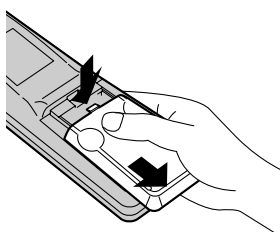


- AC Adaptor & Main Lead
AC Adaptor: (N0JZHK000004)
Main Lead: (K2CT3AA00001)



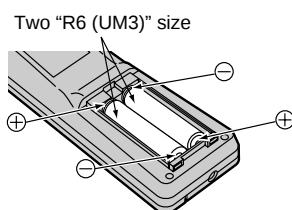
Fitting remote control batteries

1



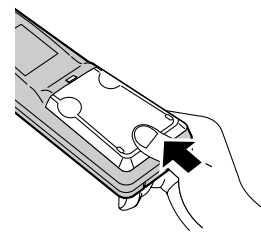
Slide off the battery cover

2



Insert batteries - note correct polarity (+ and -)

3



Replace the cover

- Make sure that the batteries are fitted the correct way round.
- Do not mix old batteries with new batteries. Remove old, exhausted batteries immediately.
- Do not mix different battery types, i.e. Alkaline and Manganese or use rechargeable (Ni - Cad) batteries.

Before Operating This Set

Receiver Location

Locate for comfortable viewing. Avoid placing where sunlight or other bright light (including reflections) will fall on the screen.

Use of some types of fluorescent lighting can reduce remote control transmitter range.

Adequate ventilation is essential to prevent internal component failure. Keep away from areas of excessive heat or moisture.

To insure optimum picture do not position magnetic equipment (motors, fans, other speakers, etc.) nearby.

Optional External Equipment

The Video/Audio connection between components can be made with shielded video and audio cables. For best performance, we recommend 75 ohm coaxial aerial cable is used. Cables are available from your dealer or electronic supply store.

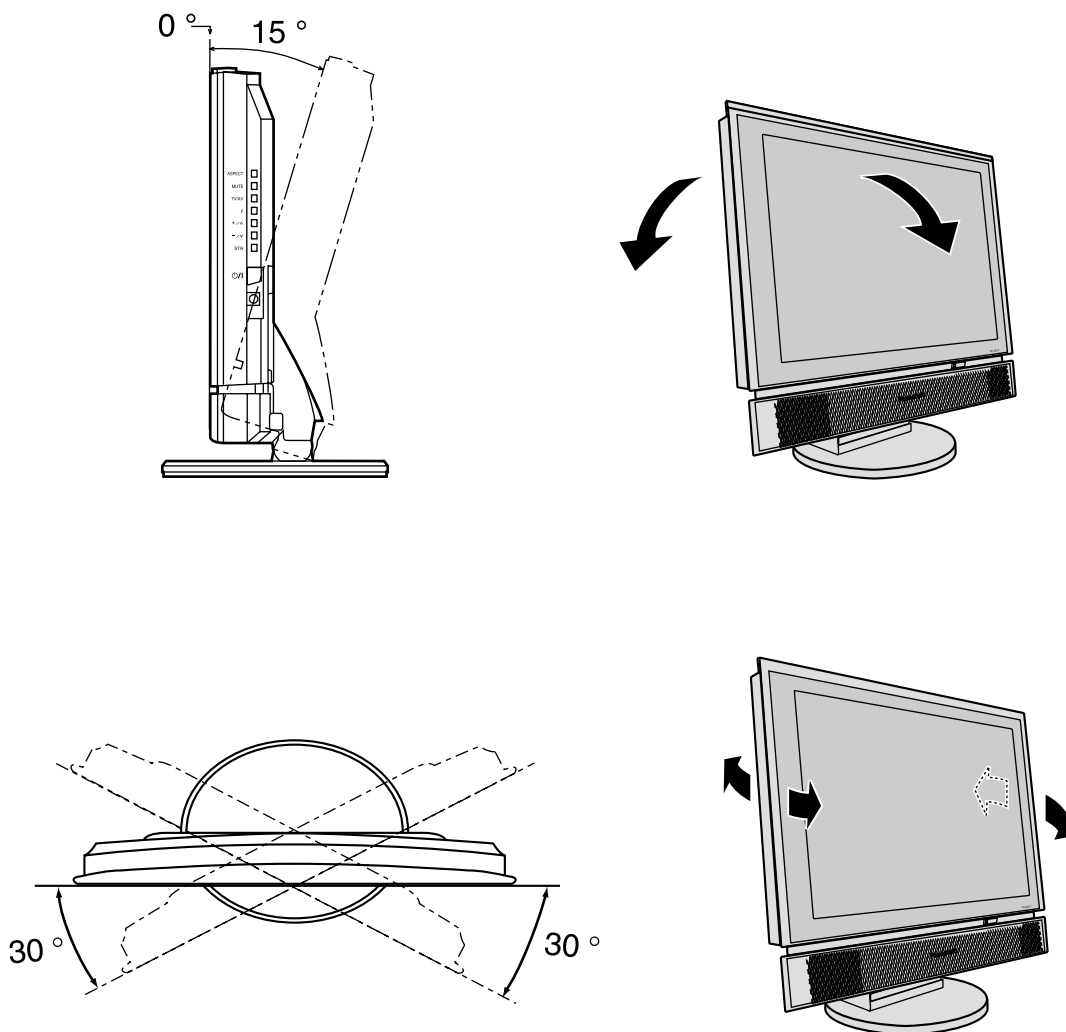
Before you purchase any cables, be sure you know what type of output and input connectors your various components require. Also determine the length of cable you'll need.

For optimum quality picture

When the LCD is exposed to light from outdoors or lighting fixtures, high-contrast pictures may not be displayed clearly. Turn off florescent lamps near the LCD and place in a location not exposed to outdoor light.

How to use the LCD stand

Adjust the stand to your desired angle. The stand angle can be adjusted between 0 ° to 15 ° back, 30 ° left and 30 ° right.



Quick start Guide

1. Choose Your Connection Type

Connection and setting up options

- If connecting the TV using an RF cable only, see below.
- If connecting the TV using Scart and RF cables, see page 7.
- If connecting the TV to a Q-Link (or Q-Link compatible) VCR, see page 7.
- If connecting the TV to a Q-Link (or Q-Link compatible) VCR and a satellite receiver, see page 8.

What is Q-Link?

Q-Link allows direct communication between the TV and a Q-Link (or Q-Link compatible) VCR, this will enable features such as downloading of tuning information from the TV to the VCR.

When using a "NEXTVIEWLINK" VCR the main features possible are the following:

- Preset Download Downloading of tuning information from the TV to the VCR.
- Direct TV Record For immediate recording of the current program (What You See Is What You Record).

When using a "Q-Link" VCR the main features possible are the following:

- Preset Download Downloading of tuning information from the TV to the VCR.
- Direct TV Record For immediate recording of the current program (What You See Is What You Record).
- TV/VCR Auto Power On When the VCR plays a tape the TV will automatically switch On (From Stand-by) and select the AV2 input.
- VCR Auto Power Stand-by When the TV is switched into Stand-by, the VCR will also switch into Stand-by.
- VCR Image view On If the TV is in Stand-by mode and the VCR sends a menu to be displayed on the TV screen (e.g. Main menu), the TV will automatically switch On and the menu will be displayed.

This TV will also communicate with other VCRs that bear the following logos:

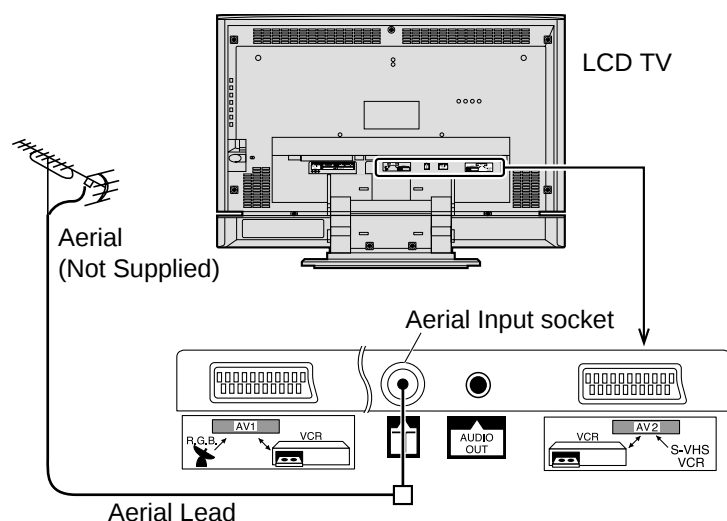
- "DATA LOGIC" (a trademark of Metz Corporation).
- "Easy Link" (a trademark of Philips Corporation).
- "Megalogic" (a trademark of Grundig Corporation).
- "SMARTLINK" (a trademark of Sony Corporation).

These VCRs may support some or all of the above functions. Refer to the VCR operating instruction book.

Further information on Q-Link can be found on page 30.

In order for Q-Link to function correctly, the Scart cables must be connected in a certain way, dependent on whether the TV is being connected to a VCR or to a VCR and Satellite Receiver.

1. Connecting the TV directly to an aerial only

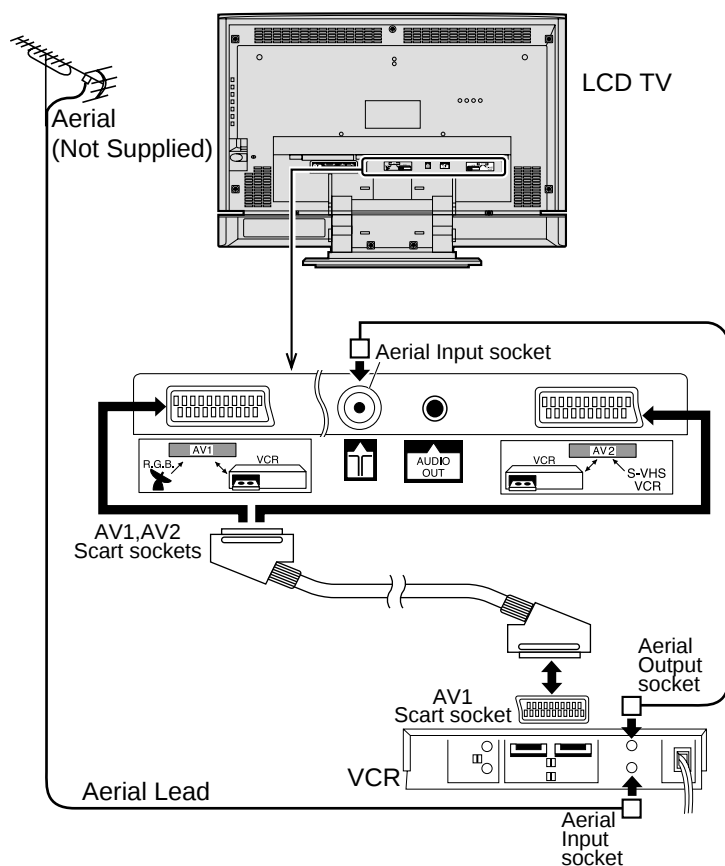


RF connection

Connect the Aerial lead into the TV Aerial socket (1F).

Quick start Guide

2. Connection of TV and VCR using Scart and RF cables



RF connection

Connect the AERIAL to the Aerial in socket of the VCR and an RF cable from the VCR Aerial Out socket to the TV Aerial socket (T).

Scart Connections

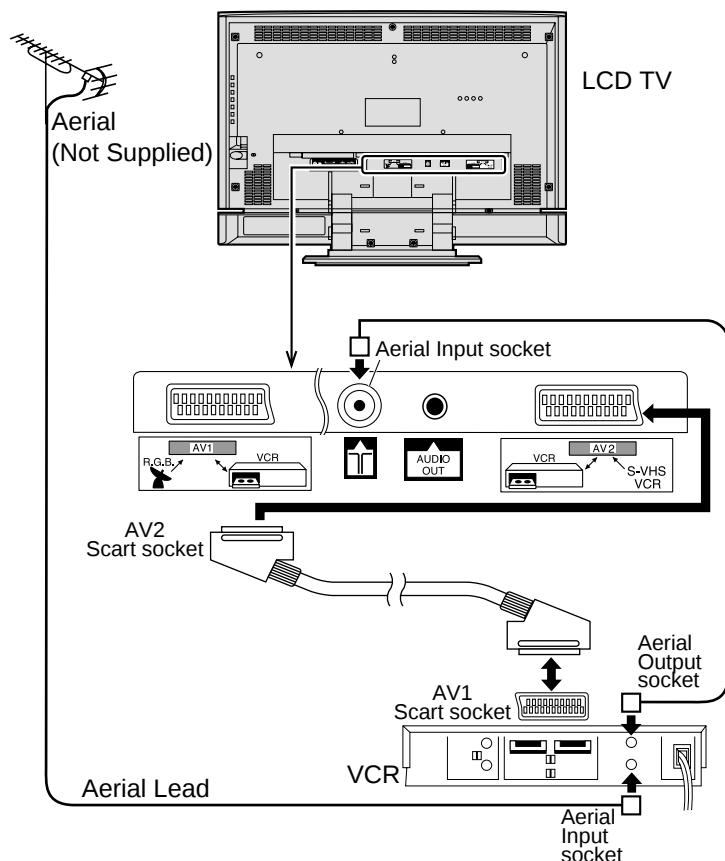
The VCR can also be connected to the TV using a Scart cable if you are using a Scart equipped VCR.

- Use the TV's AV1 Scart socket for a VCR.
- Use the TV's AV2S Scart socket for an S-Video VCR.

Notes:

- Additional equipment and cables are not supplied.
- Further details of audio / video connections can be found on pages 36 and 37.

3. Q-Link connection of TV and VCR using Scart and RF cables



RF connection

Connect the AERIAL to the Aerial in socket of the VCR and on RF cable from the VCR Aerial Out socket to the TV Aerial socket (T).

Scart connection

The VCR must be connected to the AV2 Scart socket of this TV using a 'fully wired' Scart cable.

Note:

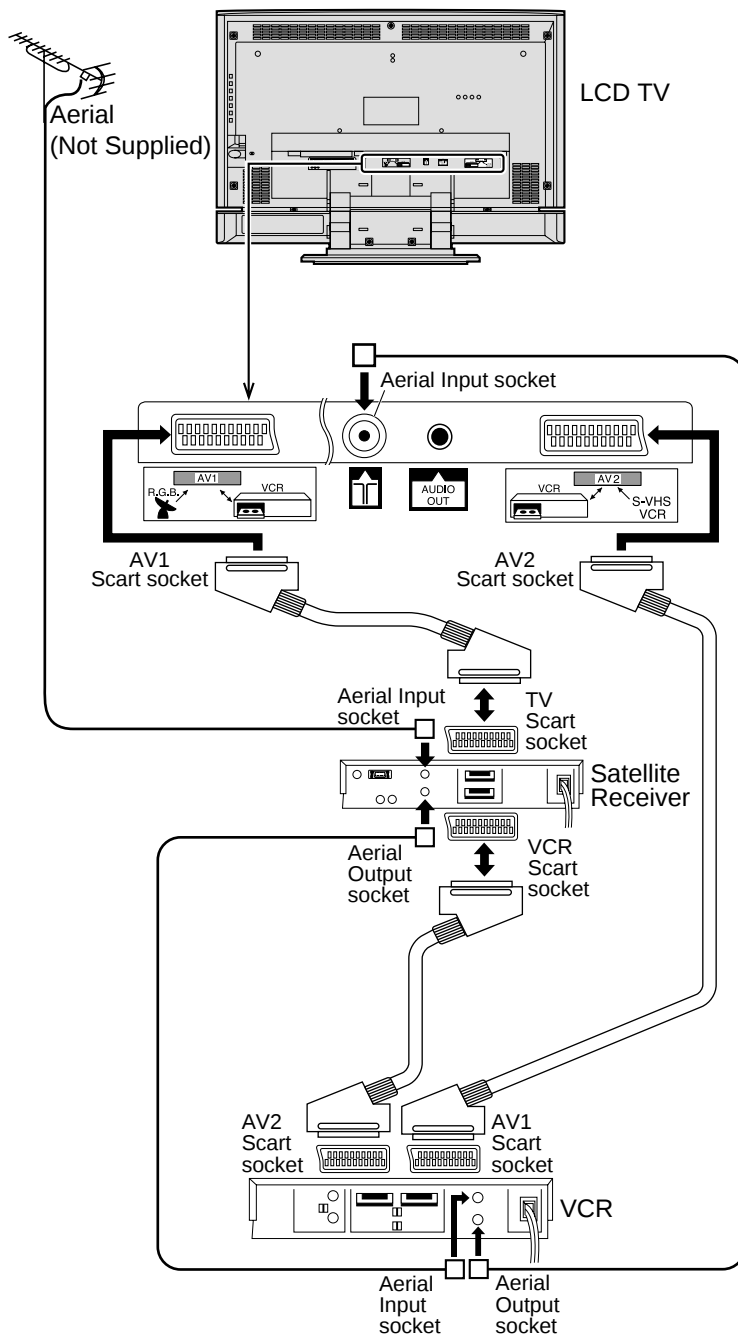
If using a "Q-Link" VCR then the AV1 Scart of the VCR must be connected to the AV2 socket of the TV. If your VCR is not a "Q-Link" VCR, please consult your VCR operating instruction book.

Notes:

- Additional equipment and cables are not supplied.
- Further details of audio/ video connections can be found on page 36 and 37.
- Further information for VCR and Satellite Receiver installation with this TV can be found on page 31.

Quick start Guide

4. Q-Link connection of TV, VCR and Satellite using Scart and RF cables



For Q-Link to function correctly the TV, VCR and Satellite Receiver must be connected as shown in the diagram below.

RF connections

- Connect an RF cable to the Aerial In socket of the Satellite Receiver.
- Connect an RF cable from the RF Out socket of the Satellite Receiver to the RF In socket of the VCR.
- Connect an RF cable from the RF Out socket to the VCR of the TV Aerial In socket (T).

Scart connections

'Fully wired' Scart Cables should be used for all of the Scart connections.

- The AV2 Scart of the VCR must be connected to the VCR socket of the Satellite Receiver.
- The TV Scart socket of the Satellite Receiver must be connected to the AV1 Scart socket of the TV.

Note:

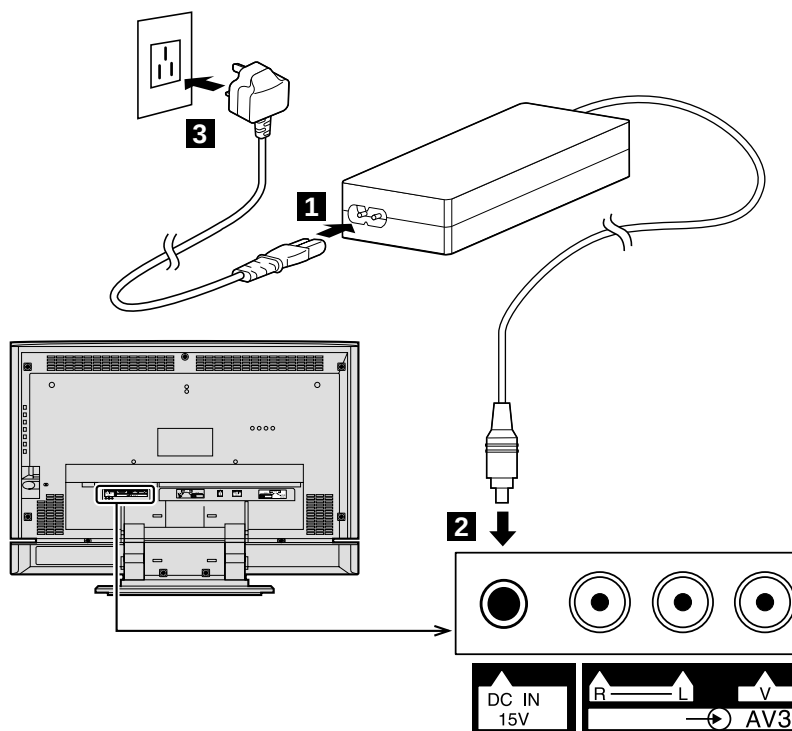
If using a "Q-Link" VCR then the AV1 Scart of the VCR must be connected to the AV2 socket of the TV. If your VCR is not a "Q-Link" VCR, please consult your VCR operating instruction book.

Notes:

- Additional equipment and cables are not supplied.
- Further details of audio/ video connections can be found on pages 36 and 37.
- Further information for VCR and Satellite Receiver installation with this TV can be found on page 31.

Quick start Guide

2. Connecting the AC Adaptor



First, ensure that the VCR is in Stand-by mode.

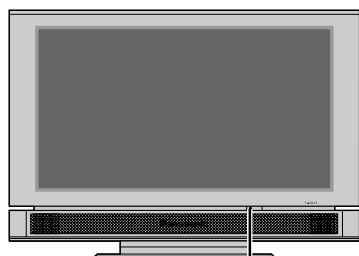
1 Connect the mains lead to the AC Adaptor.

2 Connect the AC Adaptor DC plug to the DC IN socket.

3 Plug into household mains socket.

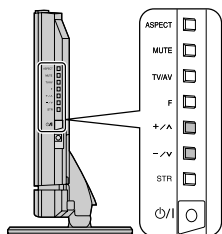
- Be sure to use the power cord and AC adaptor included in the accessories.
- Do not use the AC adaptor for other than the specified equipment.
- Unplug the AC adaptor if it is not used for long time.
- Do not place any objects on the AC adaptor.
- Do not use the AC adaptor outdoors.
- Do not attempt to repair the AC adaptor if it is broken or malfunctioning. Refer the servicing to the service representative.
- Do not try to open the AC adaptor.
- Do not use water or wet cloth for cleaning the AC adaptor.

3. Switch TV ON



Power-Indicator

The RED LED when lit indicates that not only the TV set is in stand-by mode but also the external AC adaptor is still on.



Press the  switch on the LCD TV to turn the set on.

IMPORTANT NOTES

There are two ways to switch the TV set to stand-by mode.

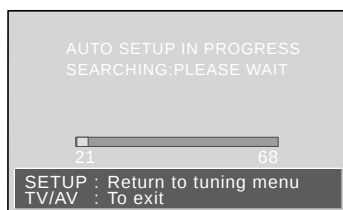
(A) Press the  switch on the LCD TV and check RED LED is lit.

OR

(B) Press the  Stand-by button on the remote control.

The TV set cannot be switched on by the remote controller if it was switched to stand-by using method (A) or vice versa if method (B) was used. **When programme number up (Δ)/down (∇) buttons on the side panel of the main part are pressed in stand-by mode, TV turns on.**

4. Auto set up

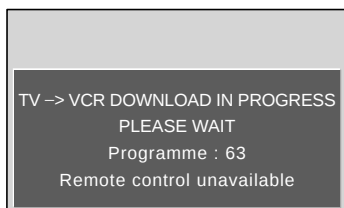


Programmes will appear immediately if your dealer has programmed the TV for you.

If the TV has not been programmed for you then **Auto setup** will begin, your stations will be located, sorted into order and stored ready for use.

Quick start Guide

5. TV to VCR download



If a Q-Link, NEXTVIEWLINK or compatible VCR has been connected to the AV2 socket before starting Step 1, programme information will be downloaded to the VCR.

Downloaded tuning data will match the television's.

Not all VCRs support this download of programme information, some may require to be started manually. Refer to the VCR operating instruction book. If a VCR other than those described above has been connected, then there will be no download operation.

Notes:

If the VCR has not accepted download data from the TV, you may need to select the Download option from the VCR's menu system.

Refer to the VCR operating instruction book.

If Q-Link is not operating correctly, check the following:

- The Scart cable is connected to the TV's AV2 Scart socket.
- The Scart cable is connected to the VCR's compatible (Q-Link, NEXTVIEWLINK or similar technology) Scart socket.
- The Scart cable is a "fully wired" type.

For further information on Q-Link and connecting equipment, see pages 13, 30 and 36.

- The sorted programme order depends upon the TV signal, the broadcasting system, and reception conditions. If the order is not to your preference it can be rearranged. Refer to the Programme edit menu - see page 22 for details.
- If you have an analogue satellite receiver, select 'SKY ONE' or 'SKY NEWS' on the receiver before starting Auto Setup. After Auto Setup is complete, the satellite position will be shown as 'SAT' in the channel listing to denote programmes from the satellite receiver.
- If you have a digital satellite receiver, you can start Auto setup with the receiver set to any channel. You will then have to manually name the 'SAT' position after Auto setup is complete. Refer to the Programme edit menu - see page 23 for details.

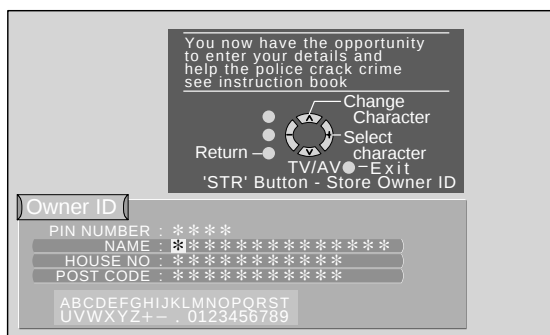
Prog. Position	All channels	No CH5	No CH5 / S4C	No CH4 / CH5	No S4C	No CH4 / S4C	No CH4 / S4C / CH5
1	BBC1	BBC1	BBC1	BBC1	BBC1	BBC1	BBC1
2	BBC2	BBC2	BBC2	BBC2	BBC2	BBC2	BBC2
3	ITV	ITV	ITV	ITV	ITV	ITV	ITV
4	CH4	CH4	CH4	S4C	CH4	CH5	SAT
5	S4C	S4C	SAT	SAT	CH5	SAT	○
6	CH5	SAT	○	○	SAT	○	○
7	SAT	○	○	○	○	○	○

Note:

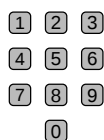
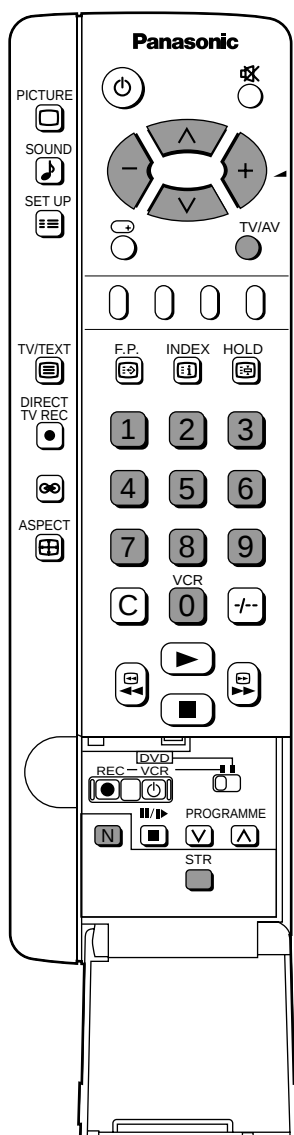
○ The next available channel will appear, if no other stations are available then the Programme position will remain unused.

Quick start Guide

6. Owner ID



As an added feature, this TV has the option of entering a security code (Owner ID) and personal details into its memory, so that in the unfortunate event of theft it will help the police to trace the owner.



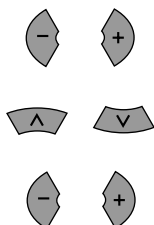
Enter required 4 digit Owner ID **PIN NUMBER** (using 0 to 9 on the remote control)



Press the **TV/AV** button at any time to exit the Owner ID feature without saving any information you may have entered.

Enter **NAME**, **HOUSE NUMBER** and **POSTCODE**

If a 4 digit **PIN NUMBER** was entered above, you will be taken automatically to the **NAME** line.



If not, move to the **NAME** line.

Change character.

Select character position.

Repeat above until **NAME**, **HOUSE NUMBER** and **POSTCODE** are entered.



Press **STR** to store the details.



Press **STR** again, when you are asked "Are you sure?"

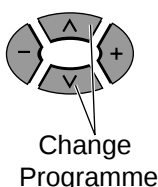
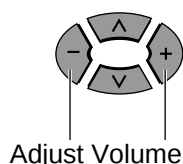
For further information on Owner ID, including how to view the details you have stored, see page 27.

A space is provided on page 27 to write down your **PIN NUMBER** for future reference.



We recommend that as soon as you have stored **Owner ID** details (or have exited the feature), the picture controls are reset to normal viewing levels. To do this, press the "N" button, found under the remote control's pull down flap.

7. The two basic functions.

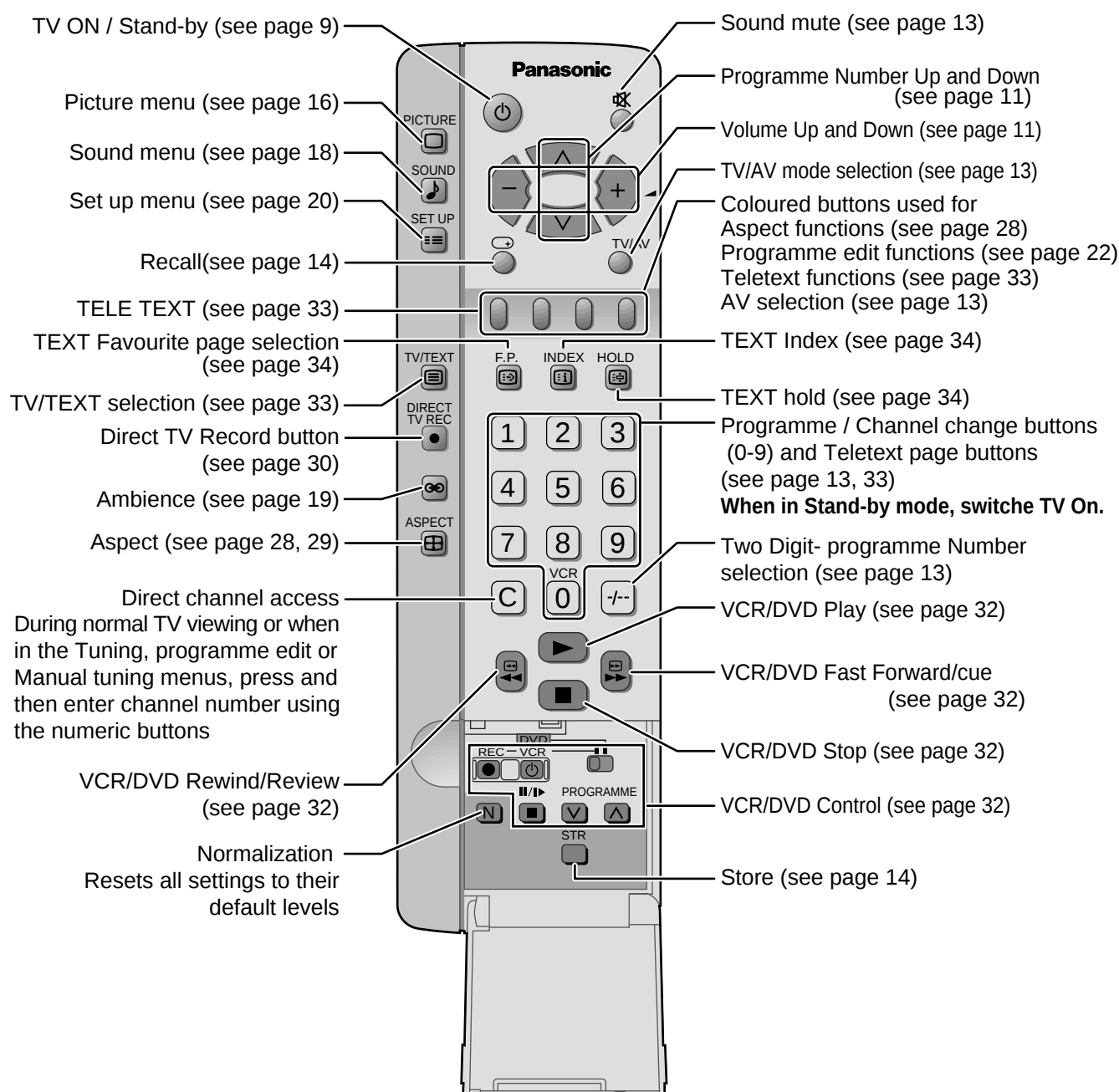
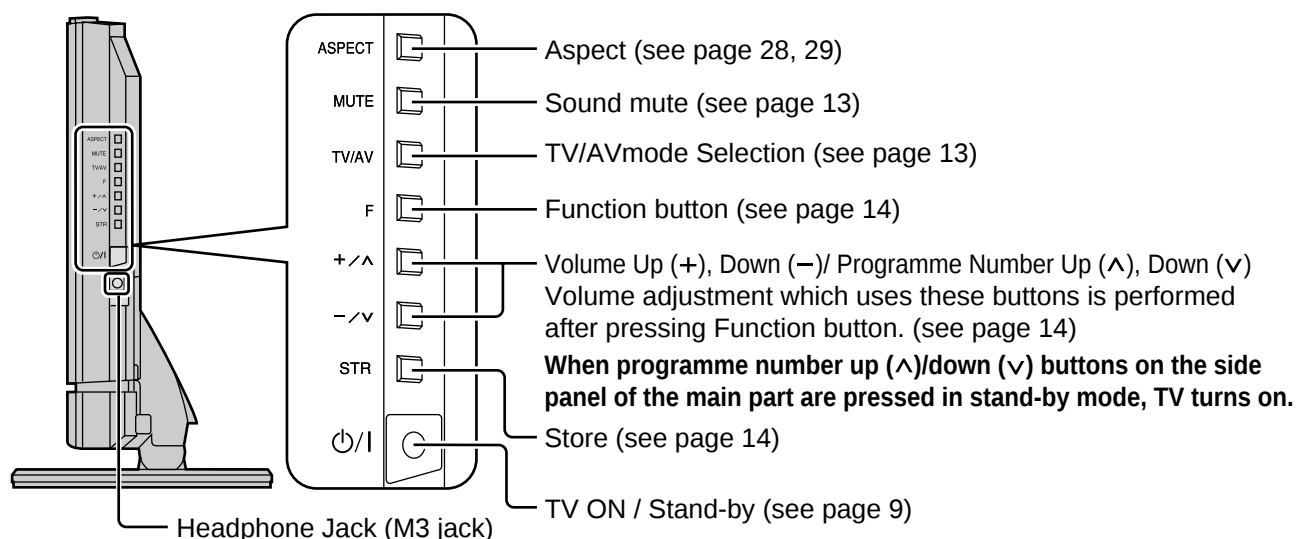


You are now ready to begin viewing programmes

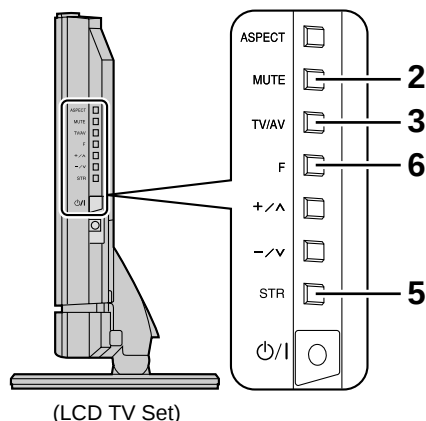
The cursor controls provide the two basic functions:

Basic controls

Side panel controls and Remote control



Basic controls



1

Direct Programme Number Selection (CH SELECT = POSITION)

You can select the numbers directly by pressing "Number 0-9" button and the two digit Numbers by pressing "Two Digit" and "Programme Number" buttons.

Programme Number 8 **8**

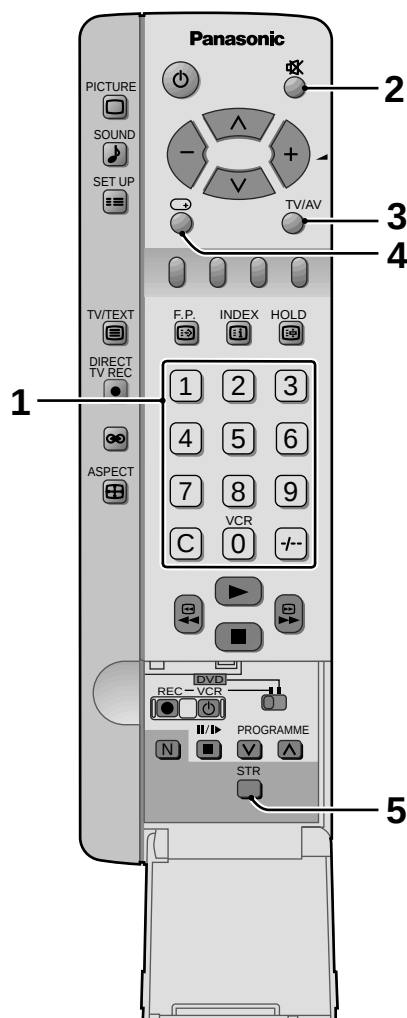
Programme Number 12..... **-/-** , **1** , **2**

Direct Programme Number Selection (CH SELECT = DIRECT)

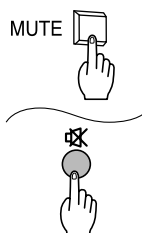
You can select the number directly by pressing the "C" button and the corresponding programme number button.

Channel Number 21..... **C** , **2** , **1**

Channel Number 68..... **C** , **6** , **8**



2



Mute button

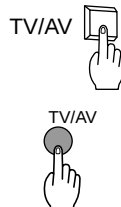
Press this button to mute the sound completely.

The "Mute" symbol will appear.

Press the button once again to restore the previous sound level, and cancel the mute.

Sound is also reactivated when power is turned off or volume level is changed.

3

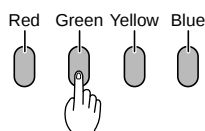


TV/AV Mode Selection

Press the "TV/AV" button to select TV, AV1, AV2, AV2S, AV3, AV3S input signal modes sequentially.

Remote control :

Press the "TV/AV" menu button



Press the relevant on screen selector key to select the AV source you wish to view. To select the S-VHS input on AV2 and AV3 (AV2/S and AV3/S), press the relevant coloured button to select either AV2 or AV3, then press again to select the S-VHS input (for example: press the green button to select AV2 if you have connected a VCR to the AV2 Scart socket; if you have a S-VHS VCR, you should press the green button again to select AV2/S.

Pressing the green button again switches back to AV2.) The on screen selector keys that appear clear after a few seconds. If you want to select an input when the keys are not shown, press the TV/AV key once more and the keys will reappear.

Note:

During AV mode selection, the picture from certain source signals may momentarily distort or change colour, but this is normal operation.

Basic controls

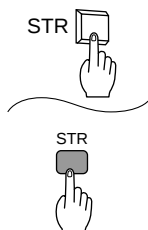
4



Recall button

Press to display programme position, programme name, channel number, time, NICAM mode, ASPECT mode and programme table.

5



STR

Used to store tuning and other function settings.

Remote control :

Stores some settings in TUNING menus.

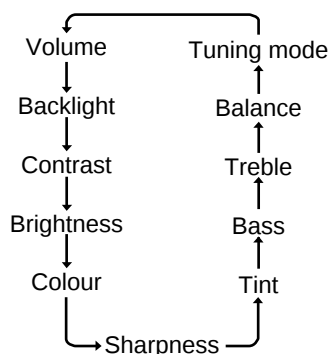
6



Function selection

Displays the on screen display functions, press repeatedly to select from the available functions.

The following adjustments can be accessed directly.



Notes:

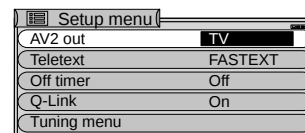
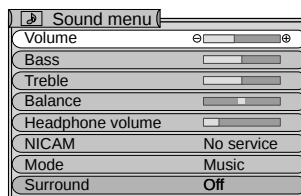
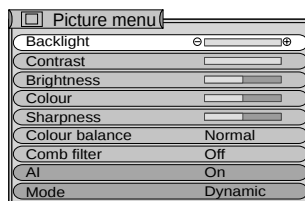
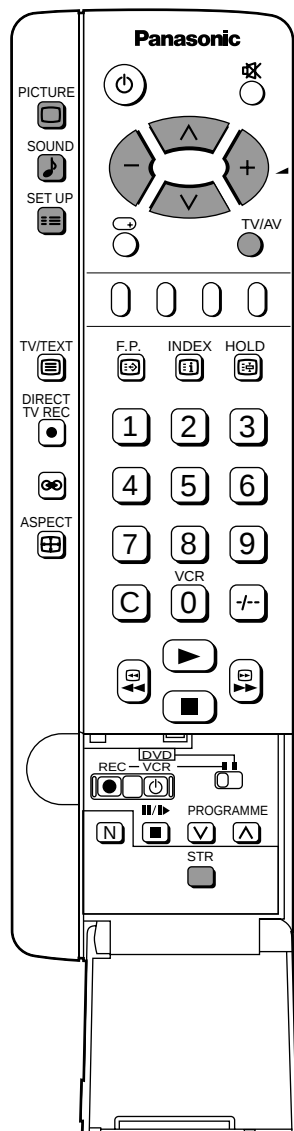
- Tint : Displayed when receiving NTSC signals.
- Tuning mode : Not displayed during AV mode.

Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu system. Use the remote control as shown below to access and adjust features as desired.

The **PICTURE**, **SOUND** and **SET UP** buttons are used to open the main menus.

PICTURE SOUND SET UP



The UP and DOWN cursor buttons are used to move the cursor up and down the menus.



The LEFT and RIGHT cursor buttons are used to access menus, adjust levels or to select from a range of options.



The **STR** button is used with a number of features to store settings after adjustments have been made or options have been set.



The **TV/AV** button is used to exit the menu system and return to the normal viewing screen.

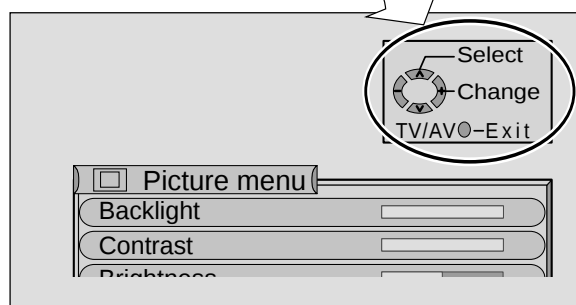
An On Screen Help box is displayed whenever a menu is displayed on the TV. This Help box indicates which keys on the remote control are used to navigate the menu shown, see above for descriptions of button functions.

Note:

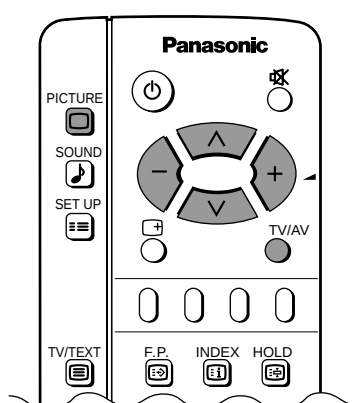
If the On Screen Menu is opened in Zoom mode, the screen will be switched into 16:9 aspect ratio.

The screen will return to Zoom mode after exiting the On Screen Menu.

ON SCREEN HELP 'Instruction' box



Picture menu



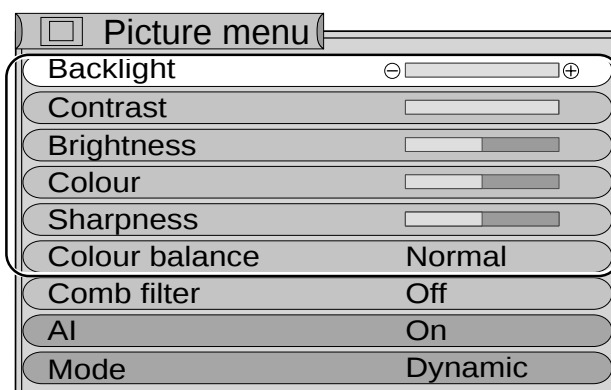
- 1 Press .
 - 2 Move to chosen menu option by using or .
 - 3 Adjust chosen option or access chosen menu by using or .
- Press at any time to go back to watching TV.

Backlight, Contrast, Brightness, Colour, Sharpness, Tint

Increase or decrease the levels of Backlight, Contrast, Brightness, Colour and Sharpness options according to your personal preference.

With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste.

Item	Effect	Function
Backlight	 Darker Brighter	Brightness of the back light is adjusted.
Contrast	 Darker Brighter	Adjust for contrast.
Brightness	 Less More	Adjusts for easier viewing of dark pictures such as night scenes and hair.
Colour	 Less More	Adjusts slightly to a lighter
Sharpness	 Less More	Displays a sharp image.
Tint	 Less More	Adjust the picture hue.

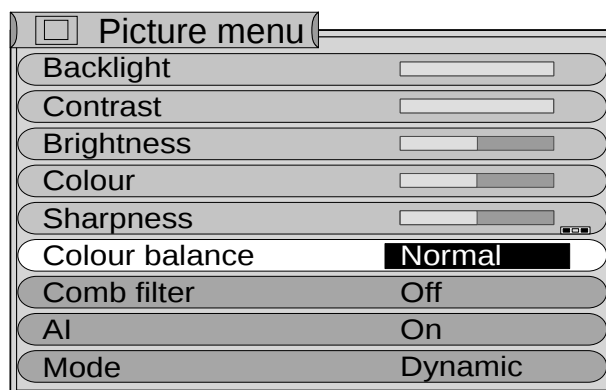
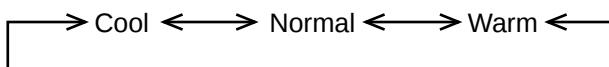


Note:

- When the TV is receiving NTSC Signals, Tint is displayed and level adjustment is possible.
- Only Contrast and Backlight will be displayed during TEXT mode.

Colour balance Allows you to set the overall colour tone of the picture.

Press or to switch between modes



Picture menu

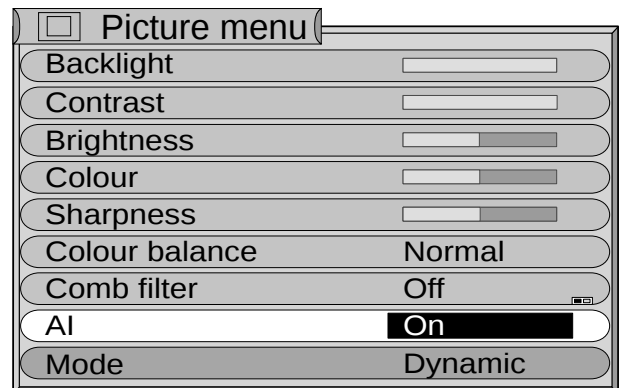
Comb filter

Reduces colour noise.

Not displayed during RGB Video input and S-Video input mode.

AI

Automatically analyses the incoming picture and processes it to give improved contrast and optimum depth of field.

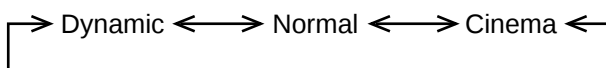
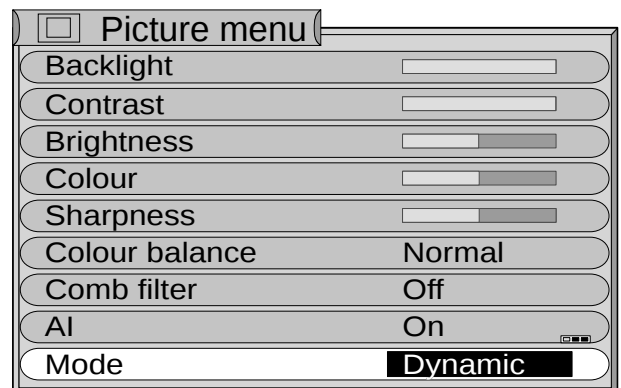


Mode

You can change the level of each Function (Backlight, Contrast, Brightness, colour, Sharpness, colour balance, comb filter, AI, Tint) for each picture menu.

Picture menu mode will be memorized for each TV, AV1, AV2 and AV3 mode.

Press  or  to switch between modes



Mode	Function
Dynamic	Displays a bright screen with maximum contrast.
Normal	Displays standard image.
Cinema	Ideal for movies in the dark room.

Note:

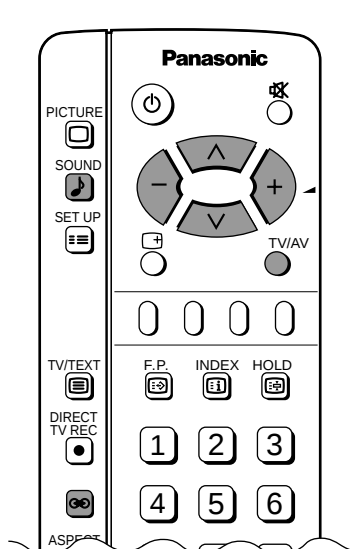
TINT appears only for NTSC input signals.

Helpful Hint (Normalization)

The 'N' key has no effect if it is pressed when menu is displayed on the screen.

If the 'N' key is pressed when no menu is displayed on the screen, the user-preset original settings will be restored (this is not the factory default settings).

Sound menu



1 Press .

2 Move to chosen menu option by using or .

3 Adjust chosen option or access chosen menu by using or .

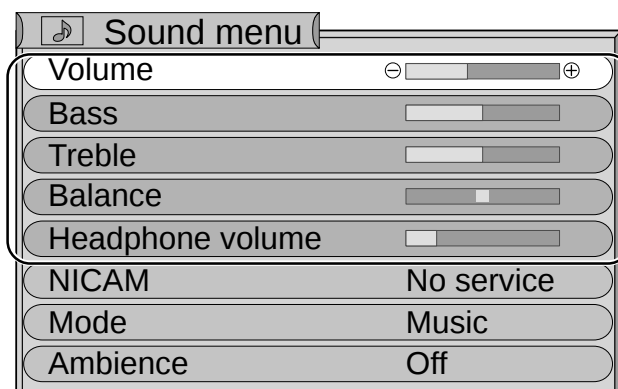
Press at any time to go back to watching TV.

Some features are only available with the Ambience feature switched off.

Press to switch between On and Off.

Volume, Bass, Treble, Balance, Headphone Volume

Item	Effect	Function
Volume	 Less More	Adjusts output volume.
Bass	 Less More	Adjusts lower deeper sounds.
Treble	 Less More	Adjusts higher sharper sounds.
Balance	 Left SP Right SP	Adjusts the sound level difference between left and right speakers.
Headphone volume	 Less More	Adjust Headphone volume.

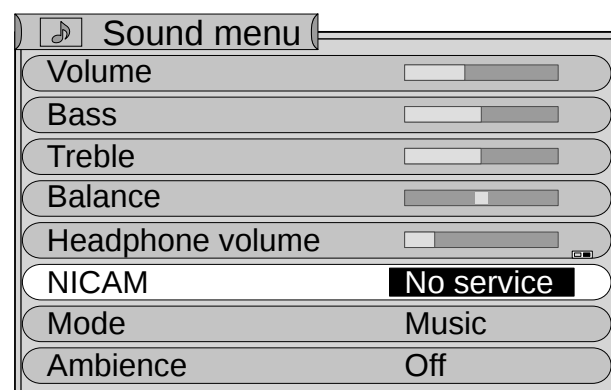


NICAM

Usually set to **stereo** to provide the best reproduction, but if reception deteriorates or if the service is not available then switch to **Mono**.

Mono (M1) and (M2) can also be selected if a mono signal is being transmitted.

Not displayed during **AV** mode.



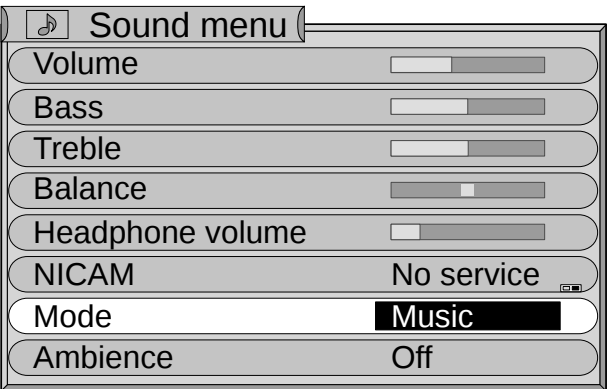
Sound menu

Mode

Sound quality can be improved when watching music or speech by selecting the appropriate mode **Music** or **Speech**.

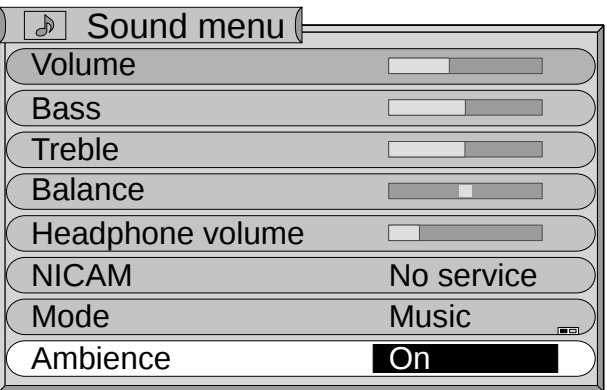
Press  or  to select Mode.

Music  Speech



Ambience

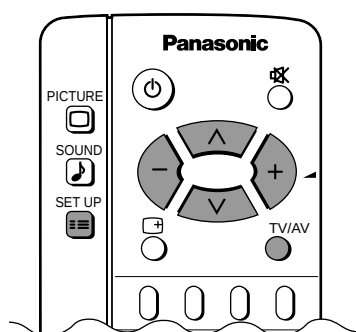
To enjoy a concert hall effect, turn Ambience to on.



Helpful Hint (Normalization)

The 'N' key has no effect if it is pressed when menu is displayed on the screen.
If the 'N' key is pressed when no menu is displayed on the screen, the user-preset original settings will be restored (this is not the factory default settings).

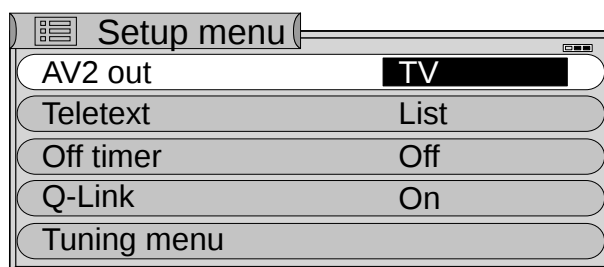
Setup menu



- 1 Press  .
 - 2 Move to chosen menu option by using  or  .
 - 3 Adjust chosen option or access chosen menu by using  or  .
- Press  at any time to go back to watching TV.

AV2 out

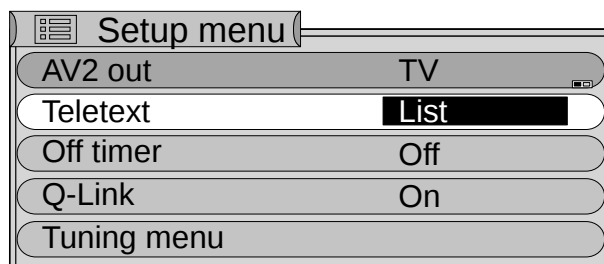
Offers a choice of signals to send to the AV2 Scart socket. You can choose from the current TV programme position, the signal entering AV1 or Monitor - the picture displayed on screen.



Teletext

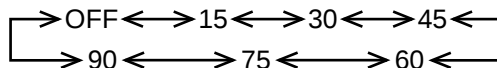
Allows you to choose 2 modes.
(See page 33)

FASTEXT ↔ List



Off timer

Switches the TV off within a preset time which you can choose from OFF and between 15 to 90 minutes in 15 minute intervals.

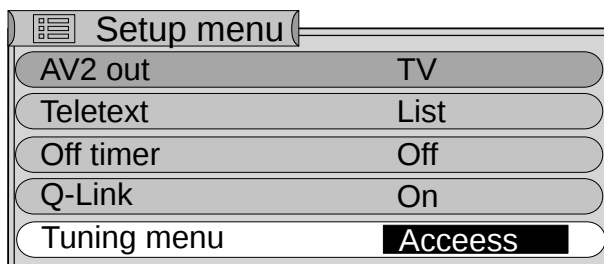


Q-Link

Allows you to enable or disable data communication between this TV and a compatible VCR. (see page 30)

Tuning menu

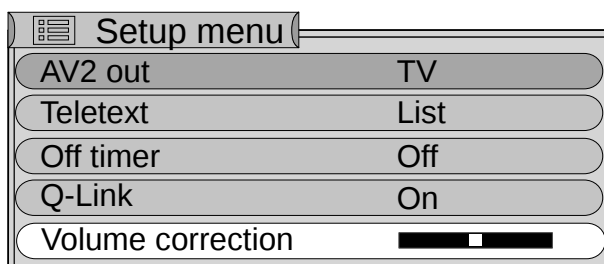
Provides access to many other features including programme edit and Auto setup. (See page 21)
Not displayed during **AV** mode.



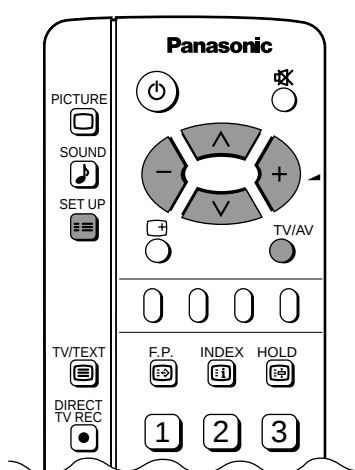
Volume correction

Lets you adjust the volume level of individual station. Use this feature if the volume level varies significantly between stations. Adjusting one station's volume to bring it into line with the other stations means you can avoid having to adjust the volume each time you change channels.

During **AV** mode, Volume correction is displayed.



Tuning menu-overview



- 1 Press  .
 - 2 Move to the Tuning menu option by using  or  .
 - 3 Access Tuning menu by using  or  .
 - 4 Move to chosen menu option by using  or  .
 - 5 Adjust chosen option or access chosen menu by using  or  .
- Press  at any time to go back to watching TV.

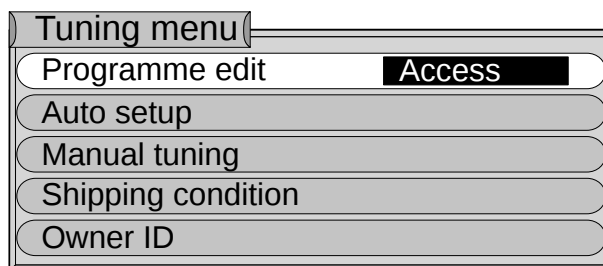
Programme edit Access in order to customise your programme settings (eg: adding or deleting a programme position) see page 22.

Auto setup Allows you to automatically retune the TV. Useful if you move house and wish to retune your TV to the local stations. see page 24.

Manual tuning Allows individual programme positions to be tuned manually. see page 25.

Shipping condition Allows you to clear all tuning information and reset all control levels back to factory setting. see page 26.

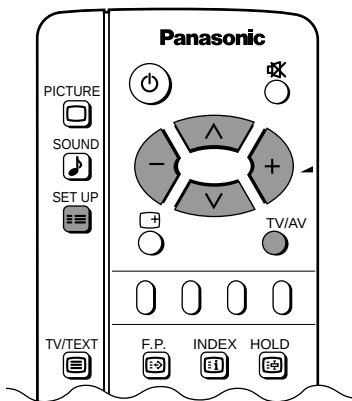
Owner ID Allows you to enter a security code and address information. see page 27.



Pressing  after having adjusted some feature will store the setting as the default (replacing the factory setting).

Tuning menu

Programme edit



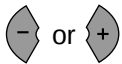
- 1 Press .
- 2 Move to the Tuning menu option by using or .
- 3 Access Tuning menu by using or .
- 4 Move to chosen menu option by using or .
- 5 Access Programme edit by using or .
- 6 Move to chosen Programme position by using or .

Make required change, eg: renaming a programme channel (see next page).

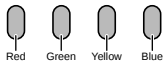
Press at any time to go back to watching TV.

Pressing after having adjusted some feature will store the change mode.

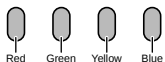
Adding / deleting a programme channel



Make sure the cursor is in the **Prog.** column.



Press the green button to add a programme channel to the programme position, or the red button to delete one.

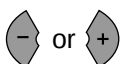


Press the same button again to confirm your decision.

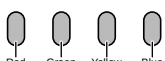
Programme edit			
Prog.	Chan.	Name	Lock
1 :	CH44	ABCDE	Off
2 :	CH51	VWXYZ	Off
3 :	CH41	FTPES	Off
4 :	CH47	12345	Off
5 :	CH37	45678	Off

Delete Add Move TV->VCR

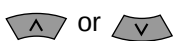
Moving a programme channel



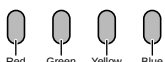
Make sure the cursor is in the **Prog.** column.



Press the yellow button.



Choose the new position for the programme channel.



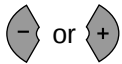
Press the yellow on screen selector key again to confirm your decision.

Programme edit			
Prog.	Chan.	Name	Lock
1 :	CH44	ABCDE	Off
2 :	CH51	VWXYZ	Off
3 :	CH41	FTPES	Off
4 :	CH47	12345	Off
5 :	CH37	45678	Off

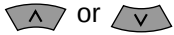
Delete Add Move TV->VCR

Tuning menu

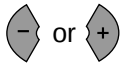
Renaming a programme channel



Move to the **Name** column.



Choose the new character. The box at the bottom of the screen shows the character currently selected.



Move to the next character position. Continue until renaming is done.

Press  to store the new name.

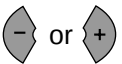
Programme edit

Prog.	Chan.	Name	Lock
1 :	CH44	ABCDE	Off
2 :	CH51	VWXYZ	Off
3 :	CH41	FTPES	Off
4 :	CH47	1 2 3 4 5	Off
5 :	CH37	4 5 6 7 8	Off

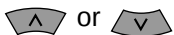
ABCDEFGHIJKLMNOPQRSTUVWXYZ
UVWXYZ+- . 0 1 2 3 4 5 6 7 8 9

Locking a programme channel

You may wish to lock a programme channel to prevent access to it.



Move to the **Lock** column.



Choose between Lock **On** or Lock **Off**.

Press  to store the new setting

Programme edit

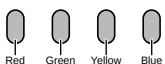
Prog.	Chan.	Name	Lock
1 :	CH44	ABCDE	Off
2 :	CH51	VWXYZ	Off
3 :	CH41	FTPES	Off
4 :	CH47	1 2 3 4 5	Off
5 :	CH37	4 5 6 7 8	Off

Note:

- When a programme position is locked, Direct Channel Access using the **C** and numeric buttons on the remote control is not available.

Copying programme information to a VCR

You can copy programme information to a compatible VCR connected to AV2 (see page 36 for connection information)



Press the blue button.
Programme data will now be sent to the VCR. This might take a few seconds, depending on the number of stations stored. If the message "Unable to download, check your VCR" appears on the screen, the television is unable to send the programme information to the VCR. See the VCR instruction book for further information.

Note:

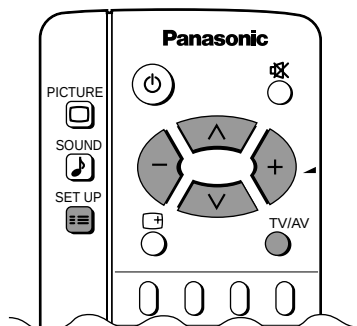
- If you have a Q-Link VCR, ensure that it is in **Stand-by** mode. If your VCR is not a Q-Link VCR, please refer to the VCR instruction book.

TV -> VCR DOWNLOAD IN PROGRESS
PLEASE WAIT
Programme : 63
Remote control unavailable

Tuning menu

Auto setup

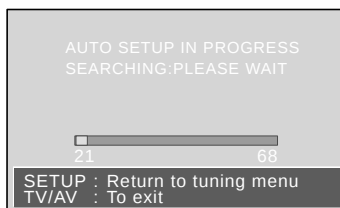
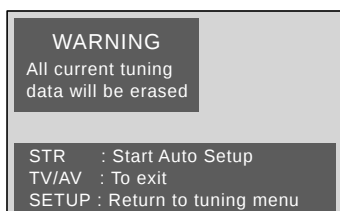
Auto setup automatically retunes your TV. This feature is useful if, for example, you move house and wish to retune your TV to receive the local stations.



- 1 Press .
- 2 Move to the Tuning menu option by using or .
- 3 Access Tuning menu by using or .
- 4 Move to chosen menu option by using or .
- 5 Access Auto setup by using or .

Note:

- If you proceed with the next step all tuning data will be erased (all stations and their programme positions stored in your TV's memory will be wiped out so the new settings can be stored).
- If an auto setup process is aborted midway, all channels that have been set up to that point will be saved to memory.



- 6 Start Auto setup by using .

The TV will search for, locate, store and then sort into order your local stations.

If a compatible VCR is connected via the AV2 socket, programme data will be sent to the VCR via Q-Link (see page 30).

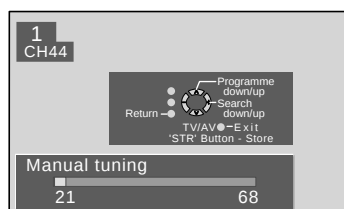
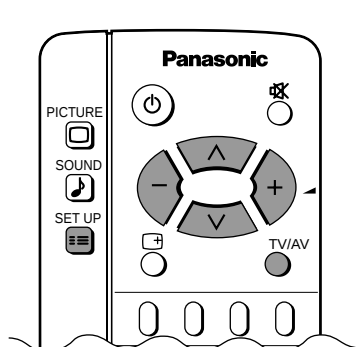
Once this operation is completed the TV will display the programme now stored on programme position 1.

Press at any time to go back to watching TV (please read the **Note** in the above procedure).

Tuning menu

Manual tuning

It is possible to retune an individual programme position:



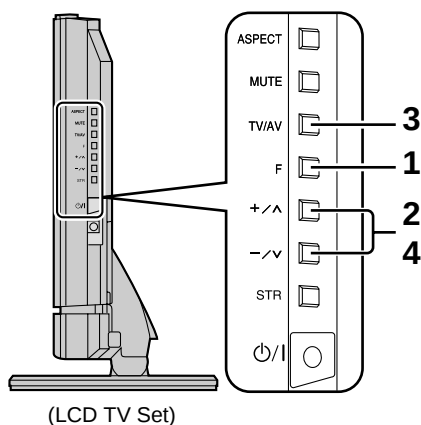
- 1 Press .
- 2 Move to chosen menu option by using or .
- 3 Access Tuning menu by using or .
- 4 Move to chosen menu option by using or .
- 5 Access Manual tuning by using or .
- 6 Select the programme position to be tuned by using or .
- 7 Press repeatedly until required station is found by using or .

When the desired station is found, press to store.
The program position will flash.

Press at any time to go back to watching TV.

Manual tuning (via side panel)

It is also possible to use the control panel buttons on the side of your TV to tune individual programme positions:



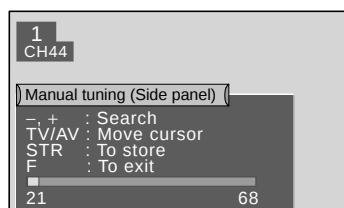
- 1 Press (Side panel) until Tuning mode is reached.
- 2 Press or to access Tuning mode.
- 3 Press to move between Change programme and search.
- 4 Press or to change programme position or start search.

When the desired station is found, press to store.

The programme position will flash.

Repeat above procedure to tune additional programme positions.

Press at any time to exit the Tuning menu.



Tuning menu

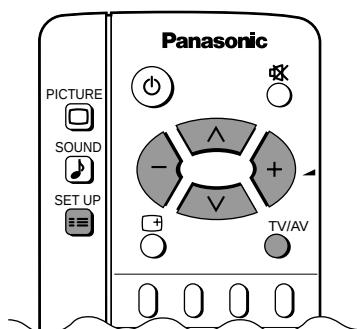
Shipping condition

Shipping condition allows you to reset the TV to its original condition, i. e. no channels tuned in. This is useful, for example, if you move to a different area when you will probably want the TV to tune itself to your new local stations.

This can be done either through the **Shipping condition** menu or through the **Auto setup** menu.

The **Shipping condition** menu will reset all data, Clearing all tuning information and resetting all control levels back to factory setting.

You may need to adjust your VCR or programme position '0' VCR after operating the **Shipping condition** menu - refer to page 31.



1 Press  .

2 Move to chosen Tuning menu option by using  or  .

3 Access Tuning menu by using  or  .

4 Move to chosen menu option by using  or  .

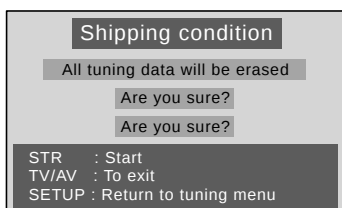
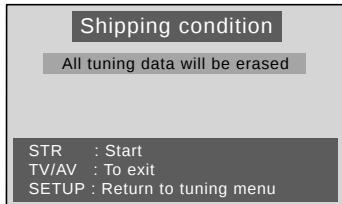
5 Access Shipping condition by using  or  .

6 Press the  key twice.

A confirmation message is displayed twice.

Press the  key a third time, and all the tuning data will be cleared into the default setting.

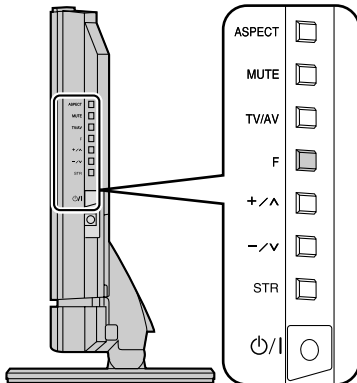
Press  at any time to go back to watching TV.



Tuning menu

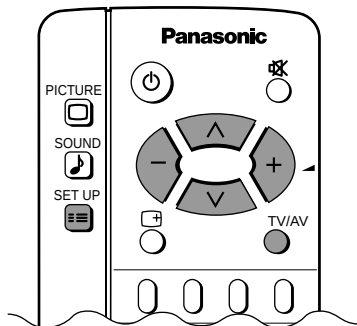
Owner ID

Owner ID allows you to enter a security code (Owner ID) and personal details into its memory, so that in the unfortunate event of theft it will help the police to trace the owner.



If you wish to check the personal details already entered into the TV, press the **F** (Side panel) and hold for 5 seconds. The details already entered are displayed on screen.

If **Owner ID** information was not entered when you switched on your TV for the first time or it is necessary to alter some of the information, **Owner ID** can be re-accessed via the **Tuning menu**.



- 1 Press **SET UP**.
- 2 Move to chosen Tuning menu option by using **▲** or **▼**.
- 3 Access chosen Tuning menu by using **◀** or **▶**.
- 4 Move to chosen menu option by using **▲** or **▼**.
- 5 Access Owner ID by using **◀** or **▶**.

If the **Owner ID** has previously been set, enter the **PIN NUMBER** (using 0 to 9 on the remote control) followed by **STR** to proceed, this will take you to the **NAME** option.

If no **Owner ID** has previously been set, enter the required 4 digit **Owner ID PIN NUMBER** (using 0 to 9 on the remote control)

If a 4 digit **PIN NUMBER** was entered above, you will be taken automatically to the **NAME** line.

If not, move to the **NAME** line by using **◀** or **▶**.

Change character by using **▲** or **▼**.

Select character position by using **◀** or **▶**.

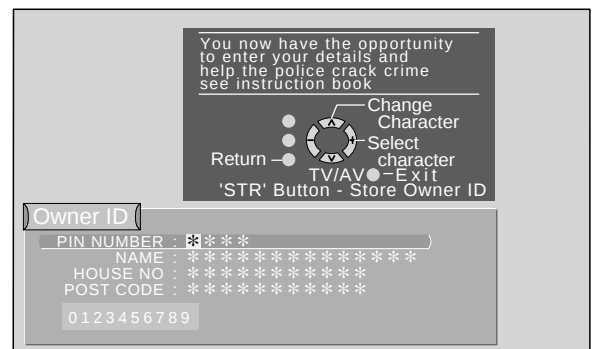
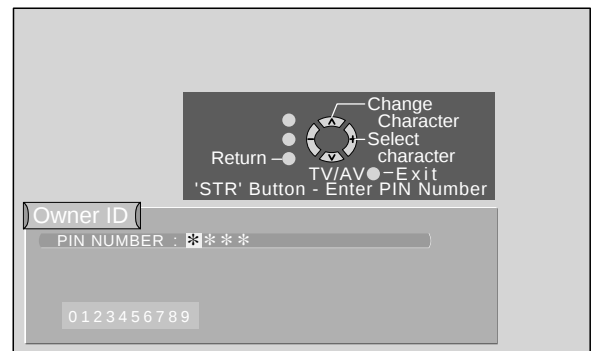
Repeat above until **NAME**, **HOUSE NUMBER** and **POSTCODE** are entered.

Press **STR** to store the details.

Press again when you are asked, "Are you sure?"

The **Tuning menu** will be displayed.

Press the **TV/AV** to exit.



For future reference,
write your **PIN NUMBER** here :

Aspect Controls

Press the **ASPECT**  to move through the five aspect options: **Panasonic Auto**, **4:3**, **Zoom**, **16:9** and **14:9**.

Notes:

- If you leave Aspect set to **Panasonic Auto**, the TV software determines the best ratio for each programme viewed. In order not to disrupt your viewing, no mode information is displayed while this is happening. Simply press the **ASPECT** button to display mode information in the top left of the screen.
- The screen modes (4:3/Zoom/16:9/14:9) are selectable manually (wide-aspect modes are not automatically selected if a wide-screen signal is applied).
- During Aspect change, the displayed picture will momentarily disappear. This is not a malfunction.

The on screen selector keys (corresponding to the two coloured buttons on the remote control) that appear for some Aspect functions clear after a few seconds, if you want to select an operation when the keys are not shown, press the **ASPECT**  button once more and the keys will reappear.

Panasonic Auto

Panasonic Auto determines the best aspect ratio to use to display the picture you are viewing. It does this using a four step process to determine if the picture being viewed is a widescreen picture.

If **Panasonic Auto** detects a widescreen signal it switches into the appropriate **16:9** or letterbox **14:9** mode. The Panorama (Just) mode is selected if a signal with wide aspect ratio is not present (the screen cannot be switched from Panorama mode into 4:3 mode).

The text shown on the screen indicates how **Panasonic Auto** determined which ratio to use:

'WIDE' appears in the top left of the screen if a widescreen identification signal (WSS) is found or a signal is found through a Scart socket. **Panasonic Auto** switches to the appropriate **16:9** or **14:9** widescreen ratio. 'Panasonic Auto' appears in the top left of the screen if black stripes above and below the picture are detected. **Panasonic Auto** chooses the best ratio and expands the picture to fill the screen. This process can take several minutes, depending how dark the picture is.

When in **Panasonic Auto** mode, if a Letter box signal is input and there is no Aspect information, the picture is automatically adjusted to 14:9 or Zoom.

When "Panasonic Auto" is indicated in the top left of the picture and the subtitle is indicated in the lower part, the position of the picture can be adjusted vertically using the Yellow (V-POS-: Downwards) or Blue (V-POS+: Upwards) Buttons.

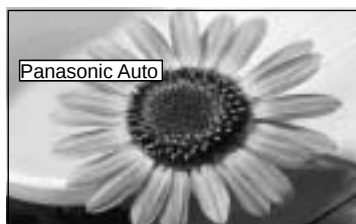
Notes:

- If, in **Panasonic Auto** mode, you experience problems with the screen display size when playing back widescreen format recordings from your VCR then it is possible that the tracking control your VCR requires adjustment (your VCR instruction book will contain adjustment details).
- The widescreen aspect ratios of different films and programmes can vary. If these are wider than a standard 16:9 aspect picture then a black band may be visible at the top bottom of the screen.



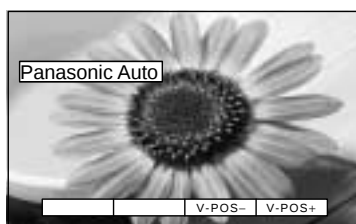
Panasonic Auto

'WIDE' appears in the top left of the screen, **Panasonic Auto** switches to the appropriate 16:9 or 14:9 widescreen ratio.



Panasonic Auto

'Panasonic Auto' appears in the top left of the screen. The best ratio is chosen and the picture expanded to fill the screen.



Panasonic Auto

Aspect Controls

4:3

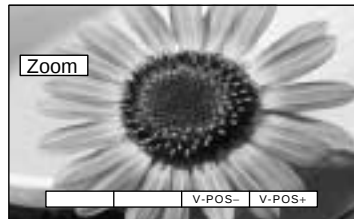
4:3 will display a 4:3 picture at its standard 4:3 size without any stretching. Black stripes will be visible down the left and right sides of the picture.



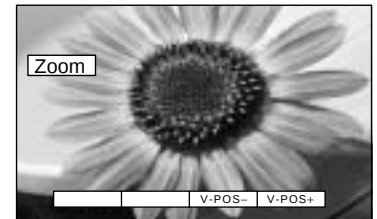
4 : 3

Zoom

Zoom mode magnifies the central section of the picture.
Press the yellow or blue buttons to move the picture vertically (useful when there are sub-titles positioned below the picture).



Zoom



Blue button has been pressed to move picture upwards

16:9

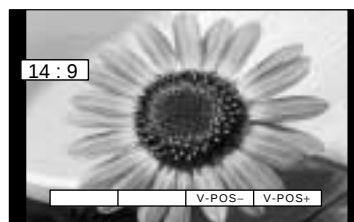
16:9 will display the picture at its maximum size but with slight stretching.



16 : 9

14:9 Letterbox

14:9 will display a 14:9 picture at its standard 14:9, size without any stretching. Black stripes will be visible down the left and right sides of the picture.
Press the yellow or blue buttons to move the picture vertically.

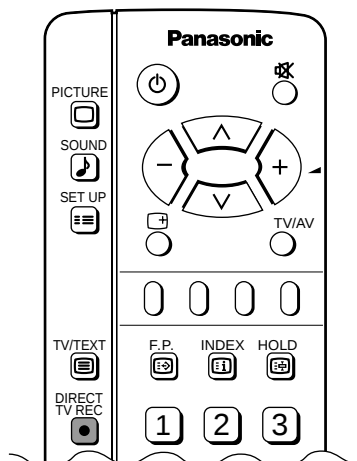


14 : 9

Q-Link

This is a **Q-Link** TV. Q-Link, NEXTVIEWLINK and similar technology provide a way for a TV and VCR to communicate, making it easier to record programmes. In order to be able to exchange information both the TV and the VCR must be fitted with this technology, and must be connected with a SCARTlead (full function type) between the AV2 socket of the TV and the appropriate socket on the VCR (see the VCR instruction book for details).

Q-Link lets your TV instruct a **compatible VCR** to record the programme currently shown on screen, no matter what programme position is set on the VCR. In order to make use of **Q-Link**, ensure that the **Q-Link** option is set to **On** in the **SET UP** menu (see page 20).



Press the  button.

Notes:

- If the VCR is in Stand-by mode, it will automatically switch on when you press the  button.
- To ensure correct recordings are made, the television and VCR should share tuning information (see page 23).
- Whenever the Auto setup function is used, tuning data will be downloaded to the VCR (see page 24).

A message, sent from the VCR, will appear on screen showing what is being recorded, or if it is not possible to record. Some "Q-Link" compatible VCRs only display the message when on the VCR programme position (0) or in AV mode. See the VCR instruction book.

VCR recording preset prog

VCR is recording the programme signal from its own tuner. If you wish you can switch off the TV and leave the VCR recording in the normal way.

VCR recording TV source

VCR is recording the programme signal from the television. You must not change programme position or switch off the TV: if you do, the VCR will automatically stop recording and switch off.

No recording - TAPE IS PROTECTED

The write protection tab on the back of the cassette has been removed.

No recording - NO TAPE

Examples of other messages that might be displayed.

No recording TAPE MAY BE DAMAGED

Preset Download

This allows the programme order from the TV to be downloaded to the VCR, this helps to ensure that correct recordings are made, there are several ways to perform this operation:

- During installation as explained in the 'Quick Start Guide' beginning on page 6.
- When Auto setup is started from within the Tuning menu, see page 24.
- When TV to VCR manual download is started from within 'Programme edit', see page 23.
- Preset download started from the VCR, refer to the VCR operating instruction book.

Notes:

- With Panasonic Q-Link VCRs these additional features are available:
 - If you insert a tape in the VCR and press the Play button whilst the TV is in 'Stand-by' mode, the TV will automatically switch On and select the AV2 input so that you can view the tape.
 - When the TV is switched into 'Stand-by' mode, the VCR will also switch into 'Stand-by' mode if there is no tape in the VCR, or if there is a tape in and the VCR is in 'Rewind' or 'Stop' mode (if the VCR is rewinding a tape, it will not switch into 'Stand-by' mode until rewinding has finished).
 - If the TV is in Stand-by mode and the VCR sends a menu to be displayed on the TV screen (e.g. Main menu), the TV will automatically switch On and the menu will be displayed.
- Not all VCRs support this technology. This TV will communicate with VCRs bearing the following logos:
 - "DATA LOGIC" (a trademark of Metz Corporation)
 - "Megalogic" (a trademark of Grundig Corporation)
 - "Easy Link" (a trademark of Philips Corporation)
 - "SMARTLINK" (a trademark of Sony Corporation)
 Some may support certain features, but not others. Refer to the VCR operating instruction book.
- If Q-Link is inoperative, first confirm that your Scart lead is a full function type. Ask your dealer for further details.

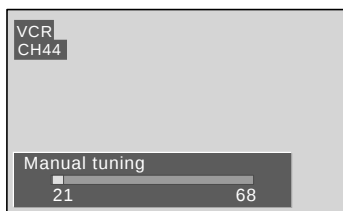
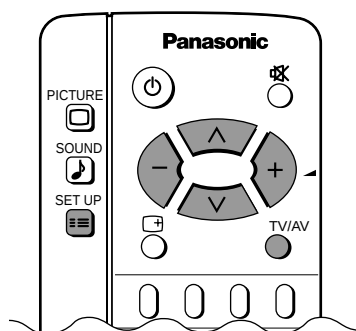
Tuning your VCR and satellite receiver

Your new TV is supplied with programme position '0' set to receive an RF signal from your VCR, although a Scart connection is preferable if the VCR is so equipped (see page 6 or 36 for suitable inputs to the Scart socket on this TV.)

However, if for some reason your VCR is tuned to a different RF channel then you will not receive any picture or sound from your VCR on programme position '0' of the TV. Either adjust the tuning of the TV's programme position '0' (follow the instructions below) or adjust the RF channel of your VCR (some VCRs allow adjustment of their RF channel via their remote control unit) or both until the TV receives the RF output channel of your VCR. It is intended that this advice is used in conjunction with the instruction books for your additional equipment.

Tuning your TV to the VCR.

Switch on the VCR, insert and play a pre-recorded tape with known content



- 1 Press .
- 2 Move to chosen Tuning menu option by using  or .
- 3 Access Tuning menu by using  or .
- 4 Move to chosen Manual tuning by using  or .
- 5 Access Manual tuning by using  or .
- 6 Select programme position '0' VCR by using  or .
- 7 Start searching for the VCR playback of the known content tape by using  or .

When the VCR playback is found, pressing  to store.

Pressing  to exit.



The tape with known content is found and displayed.

Pressing  will store the setting.

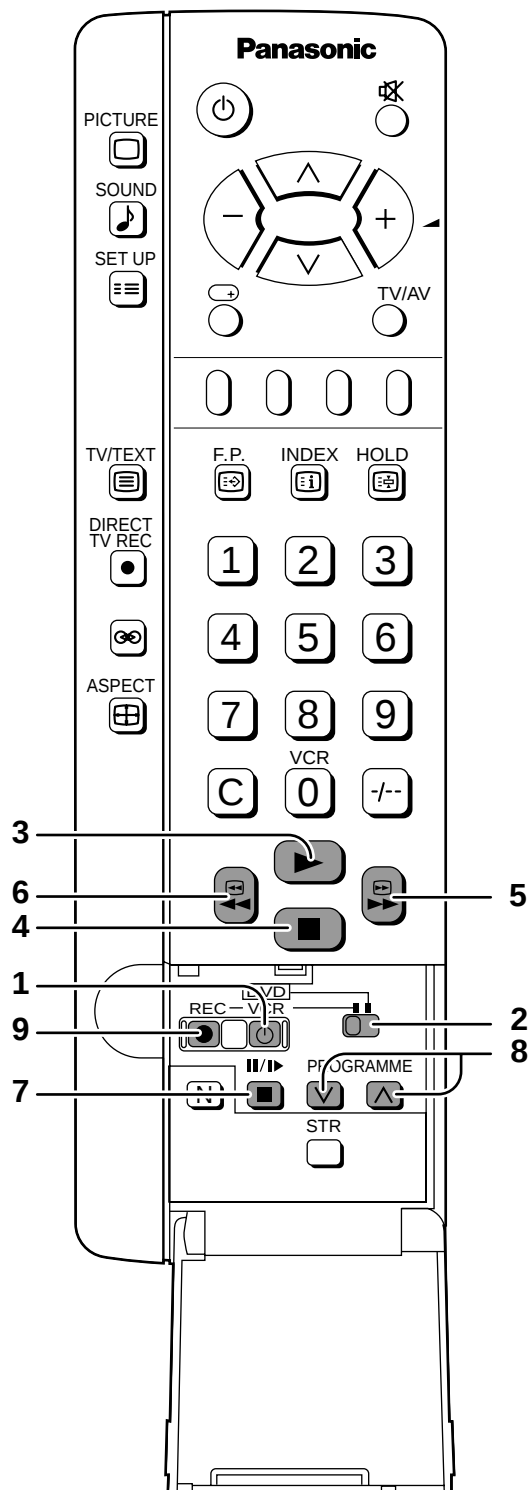
Notes:

- If picture patterning occurs on programme position '0' it may be necessary to adjust the RF output channel of the VCR, refer to the VCR instruction book.
- If a Satellite Receiver and a VCR are going to be used with RF cable connections it is important to avoid both units being set on the same channel. Refer to the Satellite Receiver and VCR instruction books for precise tuning information.

Advanced Remote Control Operation

VCR / DVD Operation

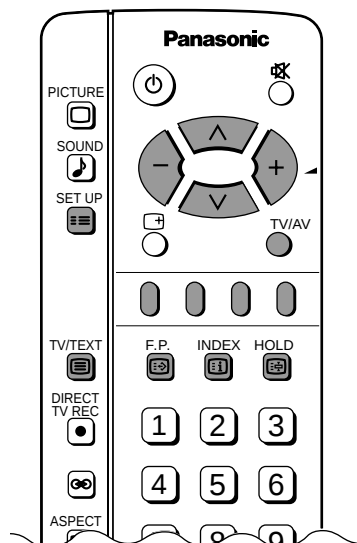
The Remote Control is capable of operating some functions of selected Panasonic VCRs and DVD (Digital Versatile Disc) equipment. Some VCR and DVD equipment have different functions, so to ensure compatibility please refer to the equipment's instruction book or consult your dealer for details.



Button		Function
1		Standby Press to switch the VCR or DVD to standby mode. Press again to switch back on.
2		VCR / DVD switch Use this switch to select whether controls operate DVD equipment or your VCR.
3		Play Press to playback the tape or DVD.
4		Stop Press to stop the tape or DVD.
5		Skip / Fast Forward / Cue VCR: Press to fast forward the tape. In Play mode, press to view the picture rapidly forward (Cue). DVD: Press once to skip to the next track.
6		Skip / Rewind / Review VCR: Press to rewind the tape. In Play mode, press to view the picture rapidly in reverse (Review). DVD: Press once to skip to the previous track.
7		Pause / Still Press in playback mode, the picture will pause. Press again to restart play.
8		Programme Up / Down Press to increase or decrease the VCR programme position by one.
9		Record Press this button to start recording.

Advanced Remote Control Operation

TELETEXT



- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting Teletext.
- Pressing the Picture button whilst in Teletext operation will display the contrast

function with a cyan bar, press or to alter the setting as required.

Pressing the Setup button whilst in Teletext operation will display special function options at the bottom of the screen.

- When in Teletext mode, the volume may still be altered to the desired listening level, after pressing SOUND or MUTE button first.

What is List mode?

In List mode, four different coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the LCD TV's memory.

What is Fastext?

In Fastext mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

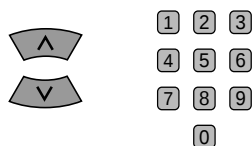
Note:

- When watching TV in 4:3, 14:9 or zoom mode, pressing TV/TEXT button will display teletext page momentarily in that aspect before switching to normal teletext picture size.



TV / Teletext mode

Press to switch between the current programme and teletext mode.



Page Selection

Pages can be selected in two ways:

- Press or to increase or decrease the page number by one.
- By entering the page number, using 0 -9 on the remote control.



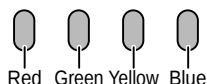
Full / Top / Bottom

Press to display special functions, followed by the **Green** button. Press the **Green** button again to expand the BOTTOM half. Press again to return to normal (FULL) size.



Reveal

Press to display special functions, followed by the **Red** button to reveal hidden words e.g. quiz page answers. Press again to hide.

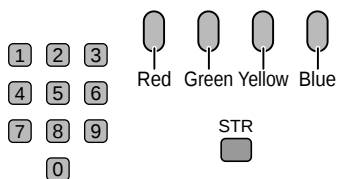


Red / Green / Yellow / Blue buttons

In Fastext mode these correspond to the differently coloured subjects. In List mode they correspond to the differently coloured page numbers.

Advanced Remote Control Operation

It is not possible to change the programme position when in News flash, Update or Sub Coded Page Access operation.



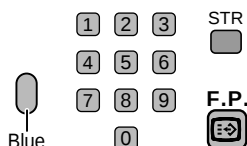
List Store

In List mode the four page numbers can be altered (programme positions 1 - 25 only). To do this, press one of the four coloured buttons and enter the new page number. Press and hold , the page numbers will change to white indicating that the page is stored.



Hold

To hold the Teletext page when viewing multi-page information. Press again to return to automatic page update.



Favourite Page (F.P.)

Stores a favourite page in memory for instant recall. To store such a page, the TV must be in List mode, and the programme position must be from 1 - 25. Press the **Blue** button, select the page number, then press and hold . The page number is now stored. Press  to recall this page.

Note:

If Teletext subtitling is in use, the aspect ratio is set to 16:9.

Update Display

Press  to display special functions, followed by the **Yellow** button to view the TV picture whilst searching for a Teletext page. When found, the screen will display the page number at the top left. Press the **Yellow** button to view the page. Press  again to return to normal TV operation.

News Flash

When a news flash page has been selected, press , **Yellow**, to view the TV picture. When an update is received, the page number will be displayed on screen.

Press the **Yellow** button to display the News Flash. Press  to return to normal TV operation.

Update

Press , **Yellow** to see the update of information on certain pages. When an update is received, the page number will be displayed at the top left of the screen. Press the **Yellow** button to view the page. Press  to return to normal TV operation.

Index

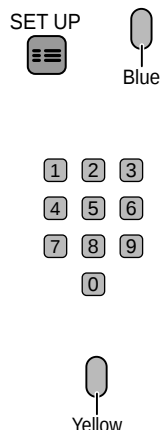
When in Fastext operation

Press  to return to the main index page.

Depending on the way information is transmitted, this may have to be pressed more than once to return to the main index page.



Advanced Remote Control Operation



Sub Coded Page Access

When Teletext information exceeds more than one page, it may take some time for the automatic changing of the sub pages to reach the sub page you require. It is possible to enter your required sub page and continue watching the normal programme until the correct sub page is found.

Select the required page number using buttons 0 - 9.

If the top of the page indicates that sub pages are being transmitted yet the page does not change, then the number at the top of the page is there to indicate that the broadcaster has updated the page's contents, there are no sub pages.

Press ^{SET UP} followed by the **Blue** button; T**** will be displayed at the top right of the screen.

Enter desired sub page number before the T**** disappears. To select page 6 enter 0, 0, 0 and 6. (If in List mode, a 'T' will appear in the current box at the bottom).

(Press ^{SET UP} , **Yellow** in List mode).

When the page is available, press the **Yellow** button to view the page.

To clear the page perform one of the following:

- Press ^{SET UP} .
- Select a new page number.
- Press ^{TV/TEXT} to return to normal TV operation.

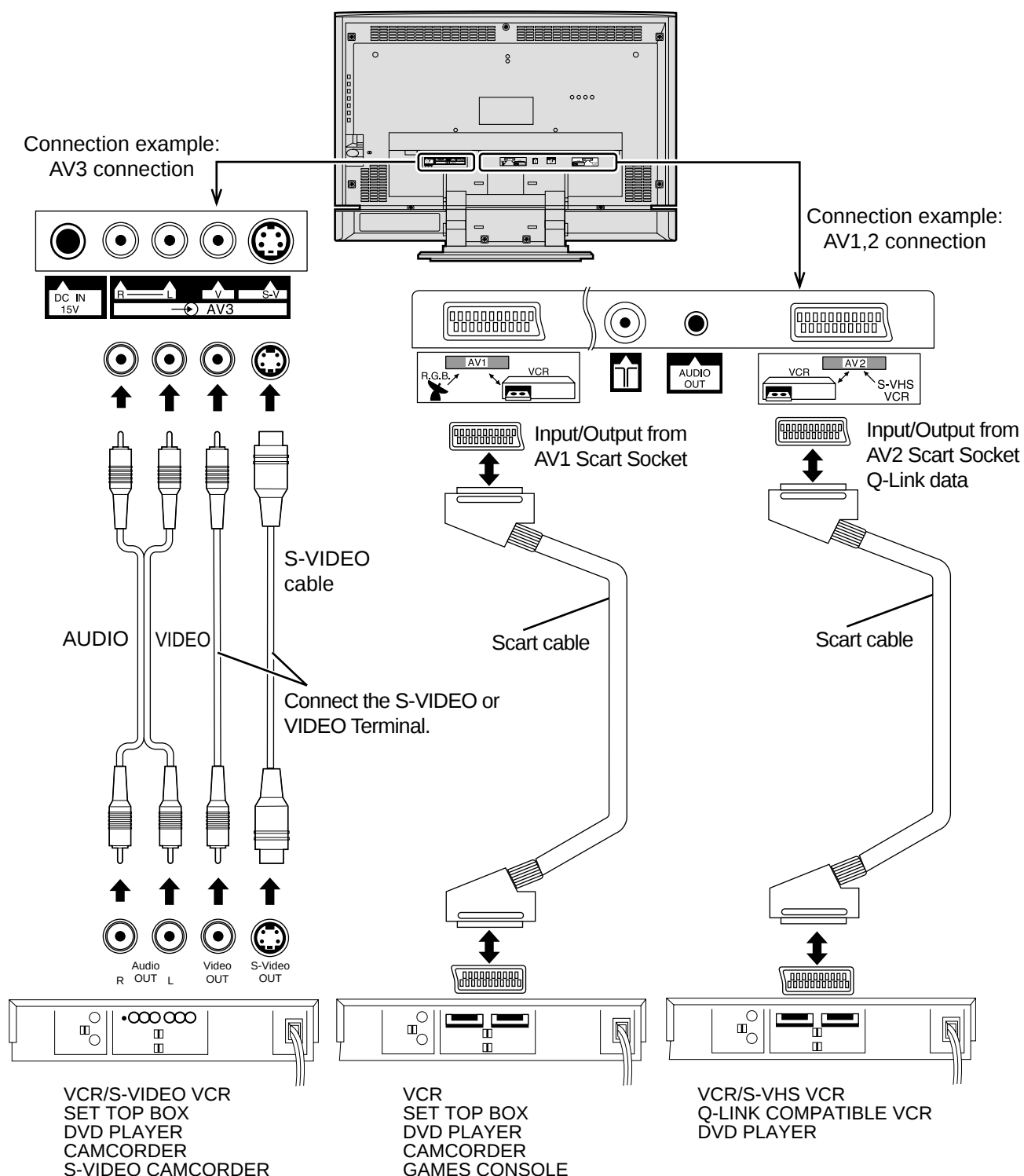
Note:

When using subtitles, the picture brightness may vary to a preset level.

Connections

How to connect the input terminals

Connects VCRs and other peripheral equipment

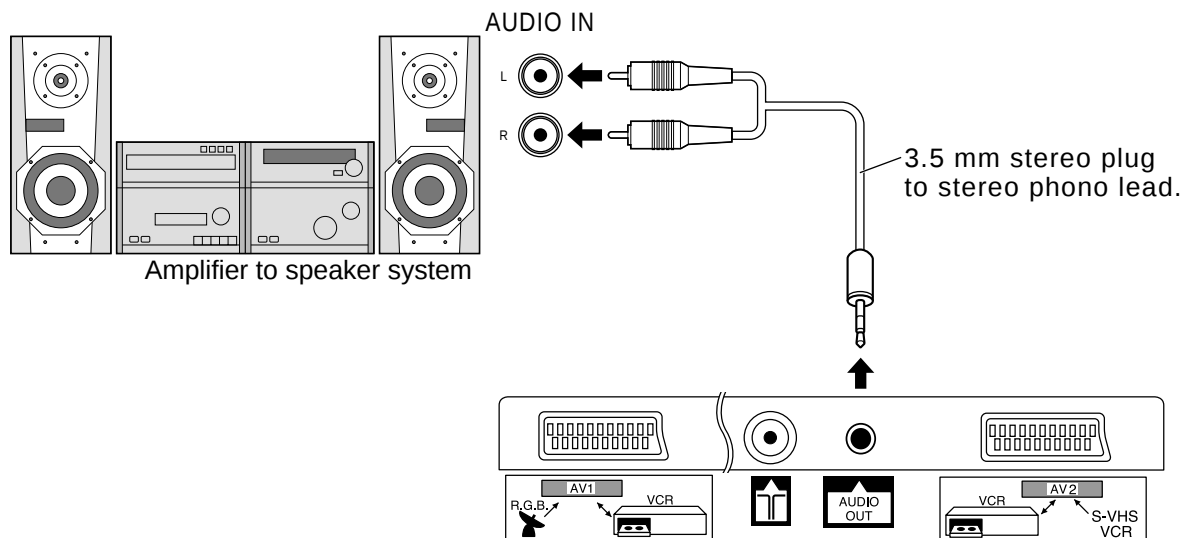


Notes:

- Additional equipment and cables shown are not supplied with this TV set.
- When a monaural VCR is used, connect the monaural audio cable to the AUDIO-L (Left) terminal.
- Do not connect a computer with TTL output (5V) to this set.
- The AV2 21 pin socket can also be used as an output to Audio/Video equipment. (see page 20)
- Select the desired VIDEO input position by pushing the TV/AV button. (see page 20)
- For Scart socket wiring information see page 39.

Connections

How to connect the AUDIO OUT Terminals



Note:

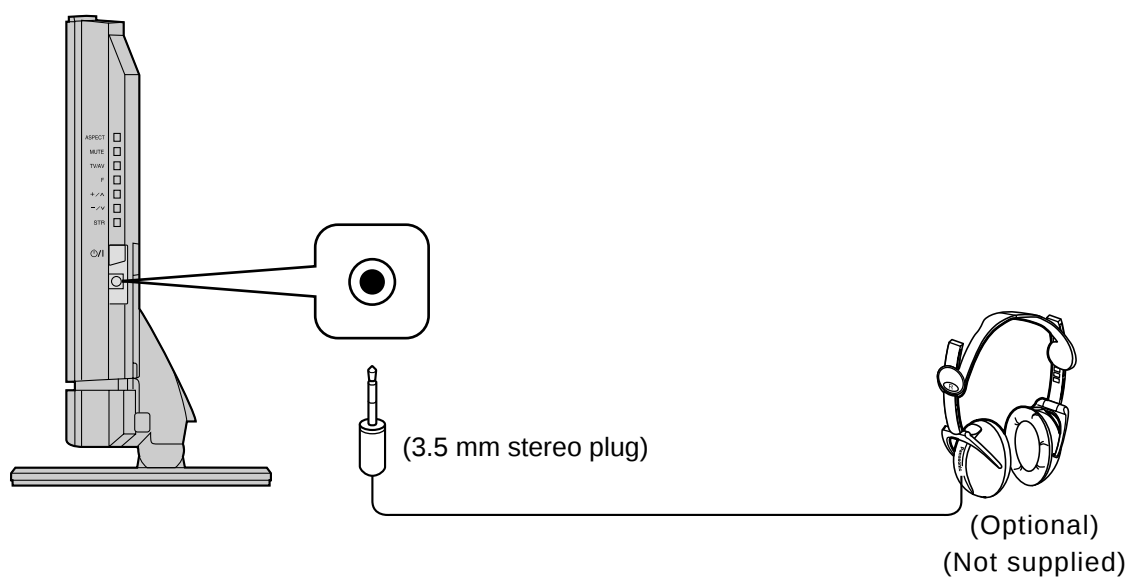
The AUDIO OUT terminal provides a fixed level output only.

(The menu settings and remote control volume controls have no effect.)

Additional equipment and cables shown are not supplied with this TV set.

Connecting Headphones / Earphones

Connect headphones / earphones as follows.



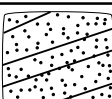
Note:

The volume level of the headphones can be adjusted by selecting "Headphone Volume" from the Sound menu.

Additional equipment and cables shown are not supplied with this TV set.

Troubleshooting

If there is a problem with your LCD TV please refer to the table below to determine the symptoms, then carry out the suggested check. If this does not solve the problem, please contact your local Panasonic dealer, quoting the model number and serial number (both found on the rear of the TV).

Symptoms		Checks
Picture	Sound	
 Snowy Picture	 Noisy Sound	Aerial location, direction or connection
 Multiple Image	 Normal Sound	Aerial location, direction or connection
 Interference	 Noisy Sound	Electrical appliances Cars/Motorcycles Fluorescent lights
 Normal Picture	 No Sound	Volume level Sound mute switched on
 No Picture	 No Sound	TV set to AV mode Not plugged into A.C. outlet Not switched on Picture / Sound controls set at minimum levels Check if in stand-by mode
 No Colour	 Normal Sound	Colour Controls set at minimum levels
 Poor or Distorted Picture	 Weak or No Sound	Retune Channel (s)
 Normal Picture	 Weak or distorted sound	Sound reception may have deteriorated. Switch NICAM setting (Sound menu) to Off until reception improves.
There may be red spots, blue spots and green spots on the screen	 Normal Sound	This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green, or red. Please note the this does not affect the performance of your LCD.

Maintenance

To clean this unit, wipe with a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth dipped in soap-and-water solution or a weak detergent solution.

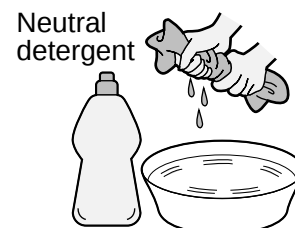
- Use eyeglass cleaner to remove stubborn dirt from the LCD.
- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.
- Do not wipe the LCD with water.

Wipe the cabinet with a soft cloth

If the cabinet is heavily soiled, wipe with a well-wrung soft cloth dipped in kitchen cleanser (neutral) diluted with water.

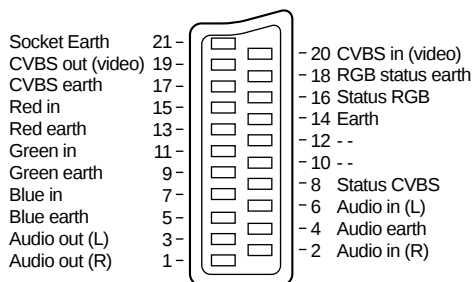
CAUTION :

If water or similar substances get inside the monitor via the liquid crystal panel surface, a malfunction may result.



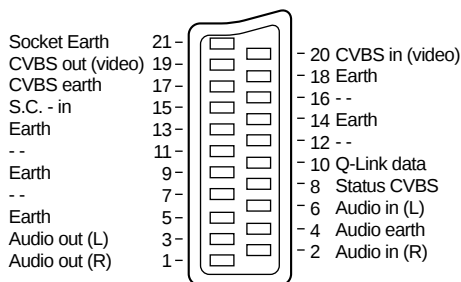
Specifications

AV1 Scart socket



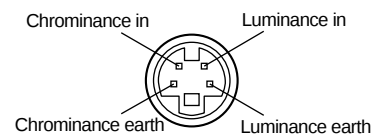
Suitable inputs for AV1 include RGB (Red / Green / Blue).

AV2 Scart socket (S-Video, Q-Link)



AV2 : Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching.

AV3 S-Video 4 pin socket



Power Source		AC 100 ~ 240 V, 50 / 60 Hz	
Power Consumption		Average use : 67 W Stand-by condition : 5 W	TV set DC 15 V, 3.8 A max.
LCD		22-inch (558 mm) 16 : 9 aspect ratio LCD panel	
Screen Size		19.17 " (486.8 mm) (W) × 10.77 " (273.6 mm) (H)	
Channel Capability-100		UHF : 21-68	
Sound	Speaker	Tweeter (4 × 7 cm 2pcs, 8 Ω), Woofer (φ 5 cm 2pcs, 4 Ω)	
	Audio Output	9W (2.5 W + 2.5 W + 4.0 W (Woofer), 10 % THD	
	Headphones	M3 (3.5 mm) Jack × 1 8 Ω impedance	
FEATURES		Aero - Hammer® Double Woofer System (2 Way 4 Speaker System)	
Receiving Systems/ Band name		PAL UHF E21 - 68 PAL 525/60 Playback of NTSC tape from some PAL video recorders (VCR) M.NTSC Playback from M.NTSC Videorecorders (VCR) NTSC Playback from NTSC Videorecorders (VCR)	
Aerial - Rear		UHF	
Operating Conditions		Temperature : 41 °F - 95 °F (5 ° - 35 °C) Humidity : 5 % - 90 % RH (non-condensing)	
Connection Terminals			
AV1		21 Pin socket (Audio / Video in , Audio / Video out , RGB in)	
AV2		21 Pin socket (Audio / Video in , Audio / Video out , S-Video, Q-Link)	
AV3	VIDEO	RCA PIN Type × 1	
	S-VIDEO	Mini DIN 4-pin	
AUDIO OUT		3.5 mm, Stereo Jack	0.5 Vrms
Dimensions (W × D × H)			
Including TV Stand		23.07 " (586 mm) × 9.45 " (240 mm) × 16.69 " (424 mm)	
TV Set Only		23.07 " (586 mm) × 2.64 " (67 mm) × 15.27 " (388 mm)	
Weight (Mass)		25.35 lb. (11.5 kg) Net	

Note:

Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

Customer' Record

The model number and serial number of this product can be found on its rear panel. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number TX-22LT2

Serial Number

Panasonic (U. K.) Ltd.

Willoughby Road, Bracknell, Berks RG12 8FP

Web Site <http://www.panasonic.co.uk>